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Proclamation 8303 of October 8, 2008

The President

Leif Erikson Day, 2008

By the President of the United States of America

A Proclamation

On Leif Erikson Day, we remember that son of Iceland and grandson of Norway for his journey to North America, and we celebrate the influential role Nordic Americans have played in our society.

Leif Erikson was among the world's greatest and most daring explorers. More than 1,000 years ago, he led a crew across the Atlantic to North America. Today, the same desire to explore and open new frontiers inspires our citizens and contributes to the strength of our Nation.

America's friendships with Denmark, Finland, Iceland, Norway, and Sweden are strong, and Nordic Americans have added to our rich cultural diversity and proud ancestry. On this day, we recognize these individuals for their remarkable achievements in all sectors of our society. America is grateful for the many contributions of Nordic Americans, and we continue to draw inspiration from the courage and optimism of the adventurous Leif Erikson.

To honor Leif Erikson and to celebrate our citizens of Nordic American heritage, the Congress, by joint resolution (Public Law 88-566) approved on September 2, 1964, has authorized the President to proclaim October 9 of each year as "Leif Erikson Day."

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, do hereby proclaim October 9, 2008, as Leif Erikson Day. I call upon all Americans to observe this day with appropriate ceremonies, activities, and programs to honor our rich Nordic-American heritage.

IN WITNESS WHEREOF, I have hereunto set my hand this eighth day of October, in the year of our Lord two thousand eight, and of the Independence of the United States of America the two hundred and thirty-third.



Presidential Documents

Title 3—**Executive Order 13476 of October 9, 2008****The President****Facilitation of a Presidential Transition**

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 7301 of title 5, United States Code, and the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108–458) (IRTPA), and in order to further the purposes of the Presidential Transition Act of 1963, as amended, and to assist the presidential transition, it is hereby ordered as follows:

Section 1. Presidential Transition Coordination. (a) To assist and support the transition efforts of the transition teams for the “major party” “candidates,” as those terms are used in the IRTPA and defined in section 9002(2) and (6) of the Internal Revenue Code of 1986 (26 U.S.C. 9002(2), (6)), and the President-elect, there is established a Presidential Transition Coordinating Council (Council).

(b) The Council shall be composed of the following officials or their designees:

- (i) Chief of Staff to the President, who shall serve as Chair;
- (ii) Assistant to the President and Deputy Chief of Staff for Operations, who shall serve as Vice Chair;
- (iii) Assistant to the President and Deputy Chief of Staff for Policy;
- (iv) Counsel to the President;
- (v) Assistant to the President for Presidential Personnel;
- (vi) Assistant to the President for National Security Affairs;
- (vii) Assistant to the President for Homeland Security and Counterterrorism;
- (viii) Assistant to the President for Economic Policy and Director, National Economic Council;
- (ix) Attorney General;
- (x) Director of National Intelligence;
- (xi) Director of the Office of Management and Budget;
- (xii) Director of the Office of Personnel Management;
- (xiii) Administrator of General Services;
- (xiv) Archivist of the United States;
- (xv) Director of the Office of Government Ethics; and
- (xvi) Such others as the President or the Chair of the Council may select.

(c) The Council shall assist the major party candidates and the President-elect by making every reasonable effort to facilitate the transition between administrations. This assistance may include, among other things, providing information relevant to facilitating the personnel aspects of a presidential transition and such other information that, in the Council’s judgment, is useful and appropriate, as long as providing such information is not otherwise prohibited by law.

(d) In order to obtain a wide range of facts and information on prior transitions and best practices, the Council, its members, or their designees may, from time to time, seek information from private individuals, including

individuals within outside organizations, who have significant experience or expertise in presidential transitions. The Council, its members, or their designees shall endeavor to obtain such facts and information from individuals representing a range of bipartisan or nonpartisan viewpoints. If the Council, its members, or their designees find it necessary to seek advice from private individuals or outside organizations, such counsel should be sought in a manner that seeks individual advice and does not involve collective judgment or deliberation.

(e) It shall be the policy of the Council to provide appropriate information and assistance to the major party candidates on an equal basis and without regard for party affiliation.

Sec. 2. *Transition Activities and Materials.* (a) At the direction of the Council or its designee(s), the Administrator of General Services shall coordinate orientation activities with the appropriate agencies, including the Office of Government Ethics and the Office of Personnel Management, for key prospective presidential appointees.

(b) At the direction of the Council or its designee(s), the White House Office of Presidential Personnel shall supplement as appropriate and necessary the electronic record of all title 5 presidentially appointed positions provided by the Office of Personnel Management to the major party candidates pursuant to section 8403(b) of IRTPA.

(c) The Suitability and Security Clearance Performance Accountability Council shall coordinate with the Council when performing those functions authorized by Executive Order 13467 of June 30, 2008, that are necessary to assist in transition-related activities.

(d) At the direction of the Council or its designee(s), executive departments and agencies shall prepare a set of briefing materials for new political appointees before the inauguration of the President-elect. The current Administration shall work with the incoming transition team to provide copies of all such materials.

(e) At the direction of the Council or its designee(s) and consistent with the Presidential Transition Act of 1963, as amended, the Administrator of General Services, in consultation with the Archivist of the United States and other appropriate agencies, shall develop a Transition Directory. This directory shall include Federal publications and other materials that provide information on each executive department and agency.

Sec. 3. *Transition Agreements.* To assist and support the transition, transition agreements between the White House or appropriate executive branch departments and agencies and the transition teams for the major party candidates and the President-elect will be entered into, as necessary, regarding transition procedures and identification of transition contacts.

Sec. 4. *General Provisions.* (a) In order to take appropriate account of the transition reforms made by IRTPA and to further update and clarify the presidential transition process, this order supersedes Executive Order 13176 of November 27, 2000.

(b) Nothing in this order shall be construed to impair or otherwise affect:

(i) authority granted by law to a department or agency, or the head thereof; or

(ii) functions of the Director of the Office of Management and Budget relating to budget, administrative, or legislative proposals.

(c) This order is intended only to facilitate the transition and is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by any party against the United States, its agencies, instrumentalities, or entities, its officers, employees, or agents, or any other person.

(d) Unless extended by the President, this order shall expire on February 20, 2009.

A handwritten signature in black ink, appearing to be "Barack Obama", written in a cursive style.

THE WHITE HOUSE,
October 9, 2008

Rules and Regulations

Federal Register

Vol. 73, No. 199

Tuesday, October 14, 2008

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

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The President

3 CFR

Proclamation 8296—To Modify Duty-free Treatment Under The Caribbean Basin Economic Recovery Act and for Other Purposes

Correction

In Presidential document E8–23562 beginning on page 57475 in the issue of Friday, October 3, 2008, make the following correction:

On page 57483 the Filed date should read “10–2–08”.

[FR Doc. Z8–23562 Filed 10–10–08; 8:45 am]

BILLING CODE 1505–01–D

GOVERNMENT ACCOUNTABILITY OFFICE

4 CFR Part 22

Rules of Procedure of the Government Accountability Office Contract Appeals Board

AGENCY: Government Accountability Office.

ACTION: Final rule.

SUMMARY: This document contains the final revisions to the interim rules of procedures of the Government Accountability Office (GAO) Contract Appeals Board (Board), which was published in the **Federal Register** on June 26, 2008. These rules supersede the interim rules of the Board and will govern all proceedings before the Board filed on or after October 1, 2007.

DATES: *Effective Date:* October 14, 2008.

FOR FURTHER INFORMATION CONTACT: James A. Spangenberg (Chairman), David Ashen (Vice Chairman), or Sharon L. Larkin (Member), 202–512–3342, cab@gao.gov. Hearing or speech impaired individuals may contact the Board via TTY by calling the toll-free

Federal Information Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

The Board published in the **Federal Register** at 73 FR 36257, June 26, 2008, interim rules of procedure along with a notice inviting comments on those rules. This notice announced the intention to promulgate final rules of procedure, following the Board's review and consideration of all comments, to govern all proceedings before the Board that are filed on or after October 1, 2007. The Board has considered all comments received, revised the interim rules in part (as explained below), and now promulgates its final rules of procedure. These rules are promulgated pursuant to the Board's authority contained in section 1501(d) of title I of division H of the Consolidated Appropriations Act of 2008, and will be contained in 4 CFR part 22.

Summary of Comments and Changes

The Board received comments from two commentators, including one legislative branch agency and one bar association. The Board carefully considered each comment and adopted some of the suggestions made by the commentators. In addition, the Board made minor changes to the interim rules to correct numbering of certain paragraphs and to clarify discovery rules to reflect current motions practice before the Board. The comments and changes are discussed below.

Sec. 22.2 [Board Consideration]. One commentator suggested that the Board clarify how all Board members “will be in a position to make an informed decision” in cases where a hearing is conducted by only one member of a three-member Board. In such cases, it is the Board's practice to make the entire record, including the hearing transcript, available to all members of the panel. The Board does not believe that clarification of the rules is necessary to address this issue.

Secs. 22.3 [Appeals—How Taken] and 22.28 [Time]. One commentator raised concern that the Board's reference to 5:30 p.m. “Eastern Standard Time” in paragraph (b) of section 22.3 and in section 22.28 could cause confusion because of the use of daylight savings time. The commentator suggested that the Board instead refer to 5:30 p.m.

“local time in Washington, DC.” The Board agrees and has revised the sections accordingly.

One commentator also suggested that paragraph (d) of section 22.3, referring to the Board's issuance of a docketing notice, be modified to indicate that the Board will identify in the docketing notice the presiding member of the panel, as well as the availability of alternative dispute resolution (ADR). Current Board practice is to provide this information in the docketing notices issued in all cases. The Board believes that these matters can be appropriately addressed in its docketing notices and declines to modify its rule.

Secs. 22.4 [Appeal File] and 22.5 [Pleadings]. One commentator suggested that the Board reverse the order of these sections. The Board declines to do so. The Appeal file is commonly referred to as the Rule 4 file and the placement of the rule at section 22.4 [Rule 4] was intentional so as to avoid confusion. Reference to the “Rule 4” file is consistent with other board practice and with what is expected by experienced practitioners in this field.

Sec. 22.8 [General Discovery Procedures]. The interim rules have led to confusion among some parties as to whether motions concerning discovery must be filed before the end date for discovery. To clarify, the Board adds paragraph (k) to section 22.8 to require parties to file all motions concerning discovery, including motions to compel discovery, on or before the end date of discovery to the maximum extent possible. The revised rule further provides that late-filed motions will not be considered except for good cause shown.

Sec. 22.13 [Requests for Admission]. Paragraphs (a)(1)(A) and (a)(1)(B) are renumbered as (a)(1)(i) and (a)(1)(ii) to be consistent with the numbering in other sections and paragraphs.

Sec. 22.15 [Conferences and Orders]. One commentator suggested that the Board consider holding a mandatory initial scheduling conference after the filing of the complaint and answer to discuss procedural issues, discovery, and case development and resolution. The Board agrees that an initial scheduling conference with the parties is a useful tool to orderly case development and resolution. Therefore, the Board revises section 22.15 to include a new paragraph (a), titled

“Initial Scheduling Conference,” which states: “As soon as practicable after the filing of the complaint and answer, the Board shall schedule an initial status conference to discuss the issues of case, the procedures available under the Board’s rules of resolution of the case, and a tentative schedule for such resolution, including the plan for possible discovery required by Rule 8(c), the possibility of alternative dispute resolution (see Rule 24), and the possibility of dispositive motions.” Paragraphs (a) and (b) of the interim rule are renumbered as paragraphs (b) and (c).

Sec. 22.16 [Hearings]. One commentator suggested that the Board clarify whether the Board must honor a party’s election of a hearing when the other party elects to proceed without a hearing. The Board intends to hold a hearing if a hearing is requested. Thus, paragraph (a) of section 22.16 is revised to replace the word “may” with “shall.”

Sec. 22.19 [Findings and Decisions of the Board]. One commentator queried how the Board’s decision will be made available to the public, and how judgments will be paid. As is the current practice, Board decisions will be made available on the Board Web site (<http://www.gao.gov>) and through CCH, Westlaw, and Lexis. The Board declines to address the availability of its decisions and the payment of judgments in its rules.

Sec. 22.24 [Alternative Dispute Resolution]. One commentator suggested that the Board clarify the rule to “enhance” the Board’s delivery of ADR services, address confidentiality restrictions with respect to the Board’s use of ADR, and provide guidance concerning available ADR techniques. As the Board notes in its interim rules, ADR guidelines, procedures, and requirements for implementing ADR will be prescribed by the agreement of the parties and the Board. This recognizes the uniqueness of each case and provides the flexibility to adapt ADR procedures to fit the needs and the concerns of the parties. The Board believes that specifying procedures in its rules would serve only to limit the possible uses of ADR and therefore declines to revise its rule.

List of Subjects in 4 CFR Part 22

Administrative practice and procedure, Contract Appeals Board, Government contracts.

■ Accordingly, the interim rule which was published in the **Federal Register** at 73 FR 36257, June 26, 2008, is adopted as a final rule with the following changes to part 22.

PART 22—RULES OF PROCEDURE OF THE GOVERNMENT ACCOUNTABILITY OFFICE CONTRACT APPEALS BOARD

■ 1. The authority citation for part 22 continues to read as follows:

Authority: Sec. 1501, Pub. L. 110–161, 121 Stat. 2249.

■ 2. Amend § 22.3 by revising paragraph (b)(5) as follows:

§ 22.3 Appeals—How Taken [Rule 3].

* * * * *

(b) * * *

(5) An appeal filed with the Board will be deemed “filed” on the date actually received by the Board if received by 5:30 p.m. local time in Washington, DC, or on the next business day if received after 5:30 p.m.

* * * * *

■ 3. Amend § 22.8 by adding paragraph (k) as follows:

§ 22.8 General Discovery Procedures [Rule 8].

* * * * *

(k) *Discovery Motions, Timing.* All motions concerning discovery, including motions to compel discovery, shall be filed on or before the scheduled end date of discovery to the maximum extent practicable. Motions that are filed after the end date of discovery will not be considered except for good cause shown.

§ 22.13 [Amended]

■ 4. Amend § 22.13 by redesignating paragraphs (a)(1)(A) and (a)(1)(B) as paragraphs (a)(1)(i) and (a)(1)(ii).

■ 5. Revise § 22.15 to read as follows:

§ 22.15 Conferences and Orders [Rule 15].

(a) *Initial Status Conference.* As soon as practicable after the filing of the complaint and answer, the Board shall schedule an initial status conference to discuss the issues of case, the procedures available under the Board’s rules of resolution of the case, and a tentative schedule for such resolution, including the plan for possible discovery required by Rule 8(c), the possibility of alternative dispute resolution (see Rule 24), and the possibility of dispositive motions.

(b) *Status Conferences and Reports.* At any time during the appeal, the Board, upon its own initiative or upon the request of one of the parties, may call upon the parties or their attorneys or representatives to appear before the Board (or one or more members thereof) for a status conference to consider or report on whatever matters are necessary to aid in the disposition of the

appeal. Such matters may include, for example, the simplification or clarification of issues, the necessity or desirability of amendments to the pleadings, agreements and rulings to facilitate discovery, progress reports during discovery, and pre-hearing procedures and scheduling. Status conferences may be conducted in person or by telephone, and the Board generally will make an order which recites the action taken at the conference(s). From time to time, the Board also may require one or more of the parties, either jointly or individually, to provide status reports concerning any matter that aids in the disposition of the appeal.

(c) *Rulings, Orders, and Directions.* The Board may make such rulings and issue such orders and directions as are necessary to secure the informal, expeditious, and inexpensive resolution of every case before the Board. Any ruling, order, or direction that the Board may make or issue pursuant to the rules of this Board may be made on the motion of any party or on the initiative of the Board. The Board may also amend, alter, or vacate a ruling, order, or direction upon such terms as it deems appropriate. In making rulings and issuing orders and directions, the Board will take into consideration those Federal Rules of Civil Procedure and Federal Rules of Evidence which address matters not specifically covered herein.

■ 6. Amend § 22.16 by revising paragraph (a) to read as follows:

§ 22.16 Hearings [Rule 16].

(a) *Election of Hearing or Record Submission.* Each party shall inform the Board, in writing, whether it elects a hearing or submission of the case on the record pursuant to § 22.17 of this part [Rule 17]. Such election shall occur no later than 15 days after the conclusion of discovery, unless the Board directs otherwise. In the event that only one party waives a hearing and submits its case on the record, the Board shall proceed with a hearing attended by the remaining parties.

* * * * *

■ 7. Revise § 22.28 to read as follows:

§ 22.28 Time [Rule 28].

In computing any period of time described in these rules, “days” refer to calendar days, unless otherwise specified in these rules. The first day from which the period begins to run is not counted, and when the last day of the period is Saturday, Sunday, or a Federal holiday, the period extends to the next day that is not a Saturday,

Sunday, or a Federal holiday. Documents shall be deemed "filed" on the date and time received by the Board if received before 5:30 p.m. local time in Washington, DC, or the next business day if received after 5:30 p.m.

Dated: October 8, 2008.

James A. Spangenberg,
Chairman, Government Accountability
Contract Appeals Board.

[FR Doc. E8-24340 Filed 10-10-08; 8:45 am]

BILLING CODE 1610-02-P

OFFICE OF PERSONNEL MANAGEMENT

5 CFR Parts 315 and 316

RIN 3206-AL29

Disabled Veterans Documentation

AGENCY: U.S. Office of Personnel
Management.

ACTION: Final rule.

SUMMARY: The U.S. Office of Personnel Management (OPM) is issuing final regulations regarding documentation required for appointments of disabled veterans. The purpose of this change is to provide consistency with the policy implemented by the Department of Veterans Affairs.

DATES: *Effective Date:* November 13, 2008.

FOR FURTHER INFORMATION CONTACT:
Darlene Phelps at (202) 606-0960, by
FAX on (202) 606-2329, TDD at (202)
418-3134, or by e-mail at
Darlene.Phelps@opm.gov.

SUPPLEMENTARY INFORMATION: On August 20, 2007, OPM proposed regulations at 72 FR 46410 regarding documentation required for noncompetitive temporary and term appointments, and conversion of 30 percent or more disabled veterans from nonpermanent appointments. The Department of Veterans Affairs (VA) considers any VA disability letter issued for purposes of establishing veterans' preference in employment proof of a permanent record of disability, unless the letter specifically states otherwise. We proposed to modify sections 315.707(a)(2)(ii) and (iii), 316.302(b)(4), and 316.402(b)(4) of title 5, Code of Federal Regulations. In addition, in section 315.707(a)(2)(ii) and (iii), we are adding a reference to disability determinations from a branch of the Armed Forces, as these entities may also certify the existence of 30 percent or more disability. These modifications will clarify that a 30 percent or more disabled veteran who has proof of disability from the VA or a branch of the

Armed Forces dated 1991 or later is eligible for a noncompetitive temporary or term appointment. The employee may be noncompetitively converted to a permanent appointment in the competitive service at any time during such an appointment. Lastly, we are adding the word "so" in section 315.707(a)(2)(iii) to clarify that "rated" refers to a service-connected disability rating of 30 percent or more. We inadvertently omitted this clarification in the proposed regulation.

Comments

Comments on the proposed rule were requested by October 19, 2007. OPM received one comment from a private citizen who noticed a typographical error in sections 316.302(b)(4) and 316.402(b)(4). We have corrected this error by changing "of" to "or" the third time it appears in each of those paragraphs.

E.O. 12866, Regulatory Review

This rule has been reviewed by the Office of Management and Budget in accordance with Executive Order 12866.

Regulatory Flexibility Act

I certify that this regulation will not have a significant economic impact on a substantial number of small entities because it will apply only to Federal agencies and employees.

Paperwork Reduction Act

The information collection requirements contained in this final rule are currently approved by OMB under 3206-0001. This final regulation does not modify this approved collection.

List of Subjects in 5 CFR Parts 315 and 316

Government employees.

U.S. Office of Personnel Management.

Michael W. Hager,
Acting Director.

■ Accordingly, OPM is amending 5 CFR parts 315 and 316 as follows:

PART 315—CAREER AND CAREER CONDITIONAL EMPLOYMENT

■ 1. The authority citation for part 315 continues to read as follows:

Authority: 5 U.S.C. 1302, 3301, and 3302; E.O. 10577, 3 CFR, 1954-1958 Comp. p. 218, unless otherwise noted; and E.O. 13162. Secs. 315.601 and 315.609 also issued under 22 U.S.C. 3651 and 3652. Secs. 315.602 and 315.604 also issued under 5 U.S.C. 1104. Sec. 315.603 also issued under 5 U.S.C. 8151. Section 315.605 also issued under E.O. 12034, 3 CFR, 1978 Comp. p. 111. Section 315.606 also issued under E.O. 11219, 3 CFR, 1964-1965 Comp. p. 303. Sec 315.607 also issued under 22 U.S.C. 2506. Sec. 315.608

also issued under E.O. 12721, 3 CFR, 1990 Comp. p. 293. Sec. 315.610 also issued under 5 U.S.C. 3304(d). Sec. 315.611 also issued under Section 511, Pub. L. 106-117, 113 Stat. 1575-76. Sec. 315.708 also issued under E.O. 13318. Sec. 315.710 also issued under E.O. 12596, 3 CFR, 1987 Comp. p. 229. Subpart I also issued under 5 U.S.C. 3321, E.O. 12107, 3 CFR, 1978 Comp. p. 264.

Subpart G—Conversion to Career or Career-Conditional Employment From Other Types of Employment

■ 2. In 315.707, revise paragraphs (a)(2)(ii) and (iii) to read as follows:

§ 315.707 Disabled veterans.

(a) * * *

(2) * * *

(ii) Have been rated by the Department of Veterans Affairs since 1991 or later, or by a branch of the Armed Forces at any time, as having a compensable service-connected disability of 30 percent or more; or

(iii) Have been so rated by the Department of Veterans Affairs, or by a branch of the Armed Forces, at the time of a qualifying temporary appointment effected within the year immediately preceding, or a term appointment effected within four years immediately preceding, the conversion.

* * * * *

PART 316—TEMPORARY AND TERM EMPLOYMENT

■ 3. The authority citation for part 316 continues to read as follows:

Authority: 5 U.S.C. 3301, 3302; E.O. 10577, 3 CFR, 1954-1958 Comp., p. 218.

Subpart C—Term Employment

■ 4. In 316.302, revise paragraph (b)(4) to read as follows:

§ 316.302 Selection of term employees.

* * * * *

(b) * * *

(4) Appointment under 5 U.S.C. 3112 (veterans with compensable service-connected disability of 30 percent or more). The disability must be documented by a notice of retirement or discharge due to service-connected disability from active military service dated at any time, or by a notice of compensable disability rating from the Department of Veterans Affairs, dated 1991 or later;

* * * * *

Subpart D—Temporary Limited Employment

■ 5. In 316.402, revise paragraph (b)(4) to read as follows:

§ 316.402 Procedures for making temporary appointments.

* * * * *

(b) * * *

(4) Appointment under 5 U.S.C. 3112 (veterans with compensable service-connected disability of 30 percent of more). The disability must be documented by a notice of retirement or discharge due to service-connected disability from active military service dated at any time, or by a notice of compensable disability rating from the Department of Veterans Affairs, dated 1991 or later;

* * * * *

[FR Doc. E8-24227 Filed 10-10-08; 8:45 am]

BILLING CODE 6325-39-P

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[NRC-2008-0237]

Policy Statement on the Regulation of Advanced Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final policy statement.

SUMMARY: On May 9, 2008 (73 FR 26349), the Nuclear Regulatory Commission (NRC; Commission) issued, for public comment, a draft policy statement on the regulation of advanced reactors. This final policy statement reinforces the Commission's current policy regarding advanced reactors and includes new items to be considered during the design of these reactors, including security, emergency preparedness, threat of theft, and international safeguards.

DATE: The effective date is November 13, 2008.

FOR FURTHER INFORMATION CONTACT: Mr. Wesley W. Held, Rulemaking, Guidance, and Advanced Reactor Branch, Division of New Reactor Licensing, Office of New Reactors, U.S. Nuclear Regulatory Commission, *Mail Stop:* T-6 C34, Washington, DC 20555-0001; *Telephone:* (301) 415-1583; *fax number:* (301) 415-5399; *e-mail:* Wesley.Held@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

- II. Summary of Public Comments and Responses to Comments
 - A. General Comments
 - B. Attributes To Be Considered During Design
 - C. Security of Advanced Reactors
 - D. Relationship to General Design Criteria (GDC)
 - E. Other Comments
- III. Final Policy Statement

I. Background

On July 8, 1986 (51 FR 24643), the Commission published a policy statement on the regulation of advanced reactors. The Commission had the following three primary objectives in issuing the advanced reactor policy statement (ARPS):

- To maintain the earliest possible interaction of applicants, vendors, and government agencies with the NRC.
- To provide all interested parties, including the public, with the Commission's views concerning the desired characteristics of advanced reactor designs.
- To express the Commission's intent to issue timely comment on the implications of such designs for safety and the regulatory process.

On July 12, 1994 (59 FR 35461), the Commission revised the 1986 ARPS by addressing the Commission's policy on metrication (57 FR 46202; October 7, 1992; as revised June 19, 1996 (61 FR 31169)).

Since the events of September 11, 2001, the NRC has assessed potential threats and their possible impacts on the Nation's fleet of operating nuclear power reactors and has required upgrades of physical security measures and mitigative strategies through the issuance of a series of security orders and license conditions. For new nuclear power reactors, the Commission considers it prudent to provide expectations and guidance on security matters to prospective applicants so that they can use this information early in the design stage of new reactors to identify potential mitigative measures and/or design features that provide a more robust and effective security posture. Therefore, the Commission decided to revise the ARPS to integrate these expectations for security and emergency preparedness with the current expectations for safety.

The Commission's expectation for advanced reactor designers to consider the effects of a large, commercial

airplane impact is currently being addressed through rulemaking (Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs—RIN AI19—Docket ID NRC-2007-0009). The Commission believes that reactors designed with potential aircraft impact considerations resulting from this rule would be more robust than if they were designed in the absence of this rule.

The proposed policy statement, "Policy Statement on the Regulation of Advanced Reactors," was published in the **Federal Register** on May 9, 2008 (73 FR 26349). The public comment period expired on July 8, 2008. This final policy statement reflects the pertinent comments received on the published draft policy statement.

II. Summary of Public Comments and Responses to Comments

Eight organizations and individuals submitted written comments on the draft policy statement. The commenters represented a variety of interests addressing a wide range of issues, and included individuals; reactor vendors; and citizen, environmental, and industry groups. Most commenters agreed with the general principle of the policy statement, but no commenter supported the policy statement exactly as proposed. Several commenters wanted changes made to the list of design attributes to be considered. Others suggested linking the design attributes to the general design criteria (GDC). Another commented on the security of nuclear power plants, and one commenter described a thorium reactor design.

Comments on this proposed rule are available electronically at <http://www.regulations.gov>. From this page, the public can find all the comments received by inputting NRC-2008-0237 into the search field. Comments are also available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this page, the public can gain access to the Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The public can search for comments using the ADAMS accession numbers listed in the table below, which includes the commenters' names and affiliations.

Letter No.	ADAMS accession No.	Commenter affiliation	Commenter name	Abbreviation
1	ML081420201	Private citizen	Paul Sund	Sund
2	ML081420208	University of California—Berkeley	Per Peterson	UCB
3	ML081770159	Toshiba	Koichiro Oshima	Toshiba
4	ML081900560	Thorium ElectroNuclear AB	Elling Disen	TEN AB

Letter No.	ADAMS accession No.	Commenter affiliation	Commenter name	Abbreviation
5	ML081900562	North Carolina Waste Awareness and Reduction Network.	John D. Runkle	NC WARN
6	ML081910787	Nuclear Energy Institute	Adrian Heymer	NEI
7	ML081910796	Union of Concerned Scientists	Edwin Lyman	UCS
8	ML081970378	Private citizen	Ray Van De Walker	Walker

This document places each public comment into one of the following categories:

- A. General Comments
- B. Attributes To Be Considered

During Design

- C. Security of Advanced Reactors
- D. Relationship to GDC
- E. Other Comments

Within each category, the NRC has either repeated comments as written by the commenter or summarized the comments for conciseness and clarity. At the end of the comment or comment summary, the NRC references the specific public comments and the letters by which they were provided to the NRC using the NRC-assigned sequential comment numbers listed in Table 1. For example, specific comments are referenced as [XXX]–[YYY], where [XXX] represents the commenter's abbreviation and [YYY] represents the NRC-assigned sequential comment number.

A. General Comments

Comment: The commenter believes that a fast fuel reactor can help reduce the volume of radioactive waste currently in storage at reactor sites in the United States and hopes that the NRC has considered or will consider those designs. (Sund-1)

NRC Response: The NRC neither develops nor promotes reactor designs, but rather reviews the safety and security aspects of designs proposed by reactor vendors and designers. The NRC has the ability to develop the capability to evaluate innovative and advanced designs that are presented for NRC review (e.g., Toshiba's 4S reactor design). No changes were made to the policy statement as a result of this comment.

Comment: The commenter suggests that the term "current generation" in the first paragraph of the policy statement could be misinterpreted because it was written in 1986 and does not take into consideration plants currently in the licensing process. The commenter suggests that the term "current generation light-water reactors" be replaced with "plants licensed before 1997." (NEI-2)

NRC Response: The NRC agrees that the term "current generation" may cause confusion because it is subjective

and time-dependent. During previous interactions with the industry, the staff indicated that "current generation light-water reactors" refers to those reactors that were licensed before 1997.

Accordingly, a footnote has been added to section III, "Final Policy Statement," providing this definition.

Comment: The commenter suggests that the discussion of the pending rulemaking on Consideration of Aircraft Impacts for New Nuclear Plant Designs (Rulemaking Docket NRC-2007-0009) is more akin to background information than a lasting statement of Commission policy and recommends deleting this paragraph or relocating it to the Background section. (NEI-3)

NRC Response: The NRC agrees with the comment and has moved the discussion to the Background section in order to alleviate the need to revise the statement again as that rulemaking progresses.

Comment: The commenter states that the NRC licensing review is a famously difficult hurdle for advanced reactors and wants the Commission to consider a pilot program where commercial bureaus would use NRC policies to review, license, and inspect new reactor designs. (Walker-1)

NRC Response: The Atomic Energy Act of 1974, as amended, describes the NRC's responsibilities. These responsibilities include the licensing of nuclear reactors; therefore, the NRC cannot transfer this responsibility to another entity. No changes were made to the policy statement as a result of this comment.

Comment: The commenter encourages "type-licensing" of reactor designs and "fast-track combined operating licenses." (Walker-2)

NRC Response: The NRC generally agrees with the comment. As the commenter noted, the NRC has regulations in place that allow these regulatory approval processes. In 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," the NRC uses the term "design certification" to describe the process of approving by rulemaking a reactor design that may be referenced by combined license (COL) applicants. A COL is a licensing process that results in the granting of a combined construction permit and operating

license with conditions. This process is different from the two-step process in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," which provides for construction permits and operating licenses. In addition to the benefits gained by using the COL process, the NRC has also developed a design-centered approach for COL reviews that implements a "one issue, one review, and one decision philosophy." No changes were made to the policy statement as a result of this comment.

Comment: The commenter believes that the overall effectiveness of the policy will be strengthened if the fourth listed attribute (and perhaps to a lesser degree, the eighth), emphasizes or prioritizes the potential for minimizing severe accidents over minimizing the consequences of such an accident. This may be a small distinction, but the commenter believes there is a benefit to initially focusing on features to prevent an accident although reactor designers should not overlook mitigation features. (Toshiba-1)

NRC Response: The NRC agrees that accident prevention is preferable to accident mitigation and believes that the fourth attribute expresses this emphasis because the attribute lists design features that enhance prevention specifically. However, the attribute has been modified to place additional emphasis on accident prevention.

Comment: The commenter notes that the policy statement makes no mention of the use of probabilistic risk assessment (PRA) in assessing the design of advanced reactors and feels that it would be helpful to describe how PRA might be used to confirm the favorable design attributes suggested. The commenter feels that it may be helpful to provide advanced reactor designers with interim guidance regarding NRC efforts for a risk informed, technology neutral licensing framework to permit designers to approach licensing with less uncertainty regarding if and/or how PRA should be utilized. (Toshiba-3)

NRC Response: The NRC has established specific requirements related to the use of PRA in licensing new nuclear power plants, which would be applicable to advanced reactors. For example, in accordance with 10 CFR

52.47, "Contents of Applications—Technical Information," applicants for a design certification must include in their application a description of the design-specific PRA and its results. In addition, 10 CFR 50.71(h) requires each holder of a COL to develop and maintain a PRA for their facility and to periodically update the PRA to reflect plant changes and any NRC-endorsed consensus standards on PRA. In addition to adopting these regulatory requirements, the Commission has also issued policy statements on the use of PRA in regulatory activities (60 FR 42622; August 16, 1995), and severe accidents regarding future designs and existing plants (50 FR 32138; August 8, 1985). The use of PRA as a design tool is implied by the policy statement on the use of PRA and the NRC believes that the current regulations and policy statements provide sufficient guidance to designers. No changes were made to the policy statement as a result of this comment.

B. Attributes To Be Considered During Design

Comment: The commenter recommends that the policy statement explicitly discuss the threat of theft, in addition to the current focus on threat of sabotage of facilities, and encourage designers to consider requirements for implementing international safeguards monitoring early in the design process, particularly for reactors that will be collocated with reprocessing facilities. The commenter suggested a possible addition to the list of design attributes included in the policy statement that relates to theft and international safeguards. (UCB-1)

NRC Response: The NRC agrees with the comment and has added expectations that reactor designers consider the threat of theft and requirements for implementing international safeguards monitoring early in the design phase. An attribute has been added to the list of design attributes to be considered during the design of advanced reactors to address these topics.

Comment: The commenter suggests that the following attributes in the current ARPS are not statements of design philosophy and are solely a restatement of existing regulations and should be deleted.

- Designs with features to prevent a simultaneous loss of containment integrity (including situations where the containment is bypassed), and the ability to maintain core cooling as a result of an aircraft impact, or identification of system designs that would provide inherent delay in

radiological releases (if prevention of release is not possible).

- Designs with features to prevent loss of spent fuel pool integrity as a result of an aircraft impact. (NEI-1)

NRC Response: The NRC agrees that these attributes are restatements of current requirements, but it believes that these aspects should be highlighted in the policy statement to ensure that they are considered early in the design phase in order to identify design features that could be included to prevent or mitigate problems rather than relying on operational programs. No changes were made to the policy statement as a result of this comment.

C. Security of Advanced Reactors

Comment: The commenter agrees that advanced reactor designers should consider potential mitigative measures and/or design features that provide a more robust and effective security posture, which should include the possible threat of terrorist attacks and aviation attacks at any reactor. (NCWARN-1)

NRC Response: As stated in the background section, the Commission's expectation for advanced reactor designers to consider the effects of a large, commercial airplane impact is currently being addressed through rulemaking (Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs—RIN A119-ID Docket NRC-2007-0009). The Commission believes that reactors designed with potential aircraft impact considerations resulting from this proposed rule would be more robust than currently-licensed reactors. However, if the NRC adopts the aircraft impact rule in final form, it will be applicable to future reactor designs and need not be addressed in this policy statement. Regarding terrorist attacks, as with operating and proposed reactors, all licensees—including those using advanced reactor designs must be able to defend against the design basis threat (DBT), which considers terrorist attacks. No changes were made to the policy statement as a result of this comment.

Comment: The commenter states that it can be concluded from the wording of the ARPS that existing reactors and reactors currently being proposed (AP1000, ESBWR, etc.) do not address possible threats of terrorist attacks and aviation attacks in any meaningful way. (NCWARN-2)

NRC Response: The NRC disagrees with the comment. All operating reactors must be able to defend against the DBT, which considers terrorist attacks. The NRC conducts both routine security inspections and force-on-force exercises to ensure that the security

plans at each plant are sufficient enough to successfully defend against the DBT. In addition, the NRC issued orders in 2002 to all operating reactors requiring them to implement measures to mitigate the effects of the loss of large areas of a plant caused by large fires and explosions. Those orders are currently being codified and once finalized will be requirements for new reactors as well. No changes were made to the policy statement as a result of this comment.

Comment: The commenter states that it seems an untenable position by the Commission to recognize that "advance reactors" need to be made safer, more robust and effective, yet ignore the clear message it is sending the public on the lack of safety at the current reactors and proposed reactors. The commenter provided a list of attributes that he feels should be required for current reactors and proposed reactors that includes many of the items listed in the policy statement as appropriate for consideration for advanced reactors. (NCWARN-3)

NRC Response: The NRC disagrees with the comment. The policy statement does not state that advanced reactor designs must be safer than the current generation of reactors, but rather that they must provide the same degree of protection of the environment and public health and safety and the common defense and security that is required for current-generation light-water reactors. The goal of the policy statement update is to encourage advanced reactor designers to consider safety and security in the early stages of design in order to identify potential design features and/or mitigative measures that provide a more robust and effective security posture with less reliance on operational programs. No changes were made to the policy statement as a result of this comment.

Comment: The commenter believes that current reactors and proposed reactors need to have attributes similar to those noted in the policy statement for advanced reactors. In addition, the commenter believes that the Commission needs to guarantee that all current reactors meet these minimal safety requirements as a top priority, and then ensure that the designs for the proposed reactors meet these requirements prior to the issuance of any new reactor license. (NCWARN-4)

NRC Response: The attributes listed in the policy statement are ones that the NRC believes should be considered during the design stage of advanced reactors. Although some of the attributes reflect those found in current requirements, not all of them are

requirements. The NRC believes that it would be impractical to force existing reactors to modify their designs to include all of the design attributes in the Advanced Reactor Policy Statement. Such changes would essentially result in those plants being completely redesigned. There is no need for such a drastic step, given that the NRC continues to believe that all currently operating reactors provide reasonable assurance of adequate protection. No changes were made to the policy statement as a result of this comment.

Comment: The commenter states that none of the existing reactors are safe and secure and that advanced reactors can wait until present deficiencies are fixed and proposed reactors are made safe and secure. (NCWARN-5)

NRC Response: The NRC believes that the existing fleet of nuclear power plants is safe and secure. The NRC also believes that advanced reactor designers should consider the expectations in the policy statement to ensure that security and emergency response are considered alongside safety during the early stages of plant design. The fact that such actions might reduce the need for operator actions or improve the overall risk profile for future plants does not mean that the existing operating plants are unsafe. No changes were made to the policy statement as a result of this comment.

D. Relationship to General Design Criteria (GDC)

Comment: The commenter wants the agency to incorporate the 'expectations' in the policy statement into the regulations as additional GDC. (UCS-1)

NRC Response: The GDC establish minimum requirements for the principal design criteria for nuclear power plants. The goal of the policy statement is not to raise these minimum requirements, but rather to encourage advanced reactor designers to consider safety and security matters during the development of future reactor designs. No changes were made to the policy statement as a result of this comment.

Comment: The commenter believes that the utility of the policy could be enhanced if the relationship of the attributes listed in the policy to the GDC of 10 CFR Part 50, Appendix A is provided. (Toshiba-2)

NRC Response: The NRC believes that the attributes identified in the policy statement should be used in conjunction with the GDC, other NRC regulations, and sound design practices to ensure that safety and security are appropriately considered in the design. The attributes do not necessarily correspond to any particular GDC or set

of GDCs, and it is not clear what benefit would be obtained if the NRC were to now identify "relationships" between the design attributes and the GDC. No changes were made to the policy statement as a result of this comment.

E. Other Comments

Comment: The commenter did not submit comments on the draft revision to the ARPS, but instead submitted information on a thorium reactor design. (TEN AB-1)

NRC Response: The commenter did not address any topic of the draft revision to the policy statement, nor did the comment explain why it should include design information on a specific design concept. No changes were made to the policy statement as a result of this comment.

III. Final Policy Statement

Consistent with its legislative mandate, the Commission's policy with respect to regulating nuclear power reactors is to ensure adequate protection of the environment and public health and safety and the common defense and security. Regarding advanced reactors, the Commission expects, as a minimum, at least the same degree of protection of the environment and public health and safety and the common defense and security that is required for current generation light-water reactors (LWRs).¹ Furthermore, the Commission expects that advanced reactors will provide enhanced margins of safety and/or use simplified, inherent, passive, or other innovative means to accomplish their safety and security functions.

Among the attributes that could assist in establishing the acceptability or licensability of a proposed advanced reactor design, and therefore should be considered in advanced designs, are:

- Highly reliable and less complex shutdown and decay heat removal systems. The use of inherent or passive means to accomplish this objective is encouraged (negative temperature coefficient, natural circulation, etc.).
- Longer time constants and sufficient instrumentation to allow for more diagnosis and management before reaching safety systems challenge and/or exposure of vital equipment to adverse conditions.
- Simplified safety systems that, where possible, reduce required operator actions, equipment subjected to severe environmental conditions, and components needed for maintaining safe shutdown conditions. Such simplified systems should facilitate operator

comprehension, reliable system function, and more straightforward engineering analysis.

- Designs that minimize the potential for severe accidents and their consequences by providing sufficient inherent safety, reliability, redundancy, diversity, and independence in safety systems, with an emphasis on minimizing the potential for accidents over minimizing the consequences of such accidents.

- Designs that provide reliable equipment in the balance of plant (BOP) (or safety-system independence from BOP) to reduce the number of challenges to safety systems.

- Designs that provide easily maintainable equipment and components.

- Designs that reduce potential radiation exposures to plant personnel.

- Designs that incorporate the defense-in-depth philosophy by maintaining multiple barriers against radiation release, and by reducing the potential for, and consequences of, severe accidents.

- Design features that can be proven by citation of existing technology, or that can be satisfactorily established by commitment to a suitable technology development program.

- Designs that include considerations for safety and security requirements together in the design process such that security issues (e.g., newly identified threats of terrorist attacks) can be effectively resolved through facility design and engineered security features, and formulation of mitigation measures, with reduced reliance on human actions.

- Designs with features to prevent a simultaneous loss of containment integrity (including situations where the containment is by-passed), and the ability to maintain core cooling as a result of an aircraft impact, or identification of system designs that would provide inherent delay in radiological releases (if prevention of release is not possible).

- Designs with features to prevent loss of spent fuel pool integrity as a result of an aircraft impact.

- Designs with features to eliminate or reduce the potential theft of nuclear materials.

- Designs that emphasize passive barriers to potential theft of nuclear materials.

If specific advanced reactor designs with some or all of the previously mentioned attributes are brought to the NRC for comment and/or evaluation, the Commission can develop preliminary design safety evaluation and licensing criteria for their safety-related and

¹ Current generation LWRs are those nuclear power plants licensed before 1997.

security-related aspects. Incorporating the above attributes may promote more efficient and effective design reviews. However, the listing of a particular attribute does not necessarily mean that specific licensing criteria will attach to that attribute. Designs with some or all of these attributes are also likely to be more readily understood by the general public. Indeed, the number and nature of the regulatory requirements may depend on the extent to which an individual advanced reactor design incorporates general attributes such as those listed previously.

In addition, the Commission expects that the safety features of these advanced reactor designs will be complemented by the operational program for Emergency Planning (EP). This EP operational program, in turn, must be demonstrated by inspections, tests, analyses, and acceptance criteria to ensure effective implementation of established measures. The Commission also expects that advanced reactor designs will comply with the Commission's safety goal policy statement (51 FR 28044; August 4, 1986, as corrected and republished at 51 FR 30028; August 21, 1986), and the policy statement on conversion to the metric measurement system (61 FR 31169; June 19, 1996).

To provide for more timely and effective regulation of advanced reactors, the Commission encourages the earliest possible interaction of applicants, vendors, other government agencies, and the NRC to provide for early identification of regulatory requirements for advanced reactors and to provide all interested parties, including the public, with a timely, independent assessment of the safety and security characteristics of advanced reactor designs. Such licensing interaction and guidance early in the design process will contribute towards minimizing complexity and adding stability and predictability in the licensing and regulation of advanced reactors.

While the NRC does not develop new reactor designs, the Commission intends to develop the capability, when appropriate, for timely assessment and response to innovative and advanced reactor designs that might be presented for NRC review. Prior experience has shown that new reactor designs—even variations of established designs—may involve technical problems that must be solved to ensure adequate protection of the public health and safety. The earlier these design problems are identified, the earlier satisfactory resolution can be achieved. Prospective applicants are reminded that, while the NRC will

undertake to review and comment on new design concepts, the applicants are responsible for documentation and research necessary to support a specific application. Research activities would include testing of new safety or security features that differ from existing designs for operating reactors, or that use simplified, inherent, passive means to accomplish their safety or security function. The testing shall ensure that these new features will perform as predicted, will provide for the collection of sufficient data to validate computer codes, and will show that the effects of system interactions are acceptable.

During the initial phase of advanced reactor development, the Commission particularly encourages design innovations that enhance safety, reliability, and security (such as those described previously) and that generally depend on technology that is either proven or can be demonstrated by a straightforward technology development program. In the absence of a significant history of operating experience on an advanced concept reactor, plans for the innovative use of proven technology and/or new technology development programs should be presented to the NRC for review as early as possible, so that the NRC can assess how the proposed program might influence regulatory requirements.

Finally, the NRC also believes that it will be in the interest of the public as well as the design vendors and the prospective license applicants to address security issues early in the design stage to achieve a more robust and effective security posture for future nuclear power reactors.

Dated at Rockville, Maryland, this 7th day of October 2008.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,
Secretary of the Commission.

[FR Doc. E8-24268 Filed 10-10-08; 8:45 am]

BILLING CODE 7590-01-P

NATIONAL CREDIT UNION ADMINISTRATION

12 CFR Part 745

RIN 3133-AD54

Share Insurance for Revocable Trust Accounts

AGENCY: National Credit Union
Administration (NCUA).

ACTION: Interim final rule with request
for comments.

SUMMARY: NCUA is amending its share insurance rules to simplify coverage for revocable trust accounts. The amendments will make the rules easier to understand and apply without decreasing coverage, result in faster share insurance determinations in the event of a credit union closing, and help improve public confidence in the credit union system. The amendments eliminate the concept of “qualifying beneficiaries.” Also, for members with revocable trust accounts totaling no more than \$500,000, coverage will be determined without regard to the proportional beneficial interest of each beneficiary in the trust.

Under the amended rules, a trust account owner with up to five different beneficiaries named in all of his or her revocable trust accounts at one NCUA-insured institution will be insured up to \$100,000 per beneficiary. Revocable trust account owners with more than \$500,000 and more than five different beneficiaries named in the trust(s) will be insured for the greater of either: \$500,000 or the aggregate amount of all the beneficiaries' interests in the trust(s), limited to \$100,000 per beneficiary.

DATES: This rule is effective on October 14, 2008. Written comments must be received on or before December 15, 2008.

ADDRESSES: You may submit comments by any of the following methods (Please send comments by one method only):

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *NCUA Web Site:* http://www.ncua.gov/RegulationsOpinionsLaws/proposed_regs/proposed_regs.html. Follow the instructions for submitting comments.

- *E-mail:* Address to regcomments@ncua.gov. Include “[Your name] Comments on Share Insurance for Revocable Trust Accounts” in the e-mail subject line.

- *Fax:* (703) 518-6319. Use the subject line described above for e-mail.

- *Mail:* Address to Mary Rupp, Secretary of the Board, National Credit Union Administration, 1775 Duke Street, Alexandria, Virginia 22314-3428.

- *Hand Delivery/Courier:* Same as mail address.

Public Inspection: All public comments are available on the agency's Web site at <http://www.ncua.gov/RegulationsOpinionsLaws/comments> as submitted, except as may not be possible for technical reasons. Public comments will not be edited to remove

any identifying or contact information. Paper copies of comments may be inspected in NCUA's law library at 1775 Duke Street, Alexandria, Virginia 22314, by appointment weekdays between 9 a.m. and 3 p.m. To make an appointment, call (703) 518-6546 or send an e-mail to OGCMail@ncua.gov.

FOR FURTHER INFORMATION CONTACT:

Frank Kressman, Staff Attorney, at the above address, or telephone: (703) 518-6540.

SUPPLEMENTARY INFORMATION:

I.

A. Background

NCUA insures member share accounts in all federally-chartered credit unions and the vast majority of state-chartered credit unions. This accounts for approximately 98% of all credit unions in the United States. Despite NCUA's best efforts to provide clear information on insurance coverage for revocable trust accounts and recent rule changes to simplify that determination, NCUA recognizes there is still significant public and industry confusion about the insurance coverage of revocable trust accounts. See NCUA Web site at <http://www.ncua.gov/ShareInsurance/index.htm>; 68 FR 75111 (December 30, 2003); 69 FR 8798 (February 26, 2004). This is evidenced by the great volume of share insurance inquiries NCUA has received as a result of recent events in the financial markets and is particularly true of living trust accounts, one of the two types of revocable trust accounts NCUA insures. This is largely due to the increasingly complex nature of living trusts.¹ NCUA believes the amendments in this interim rule will further clarify how revocable trust accounts are covered, enhance NCUA's ability to help maintain public confidence and stability in the credit union system, and protect insured members.

B. Current Share Insurance Rules for Revocable Trust Accounts

NCUA insures informal and formal revocable trust accounts under its share insurance rules. 12 CFR Part 745. Informal trust accounts are comprised simply of a signature card on which the member designates the beneficiaries to whom the funds in the account will pass upon the member's death. These are the most common type of revocable trust accounts and generally are referred to as "payable-on-death" (POD) accounts or in-trust-for (ITF) accounts or *Totten Trust* accounts. Throughout this

preamble, NCUA will refer to all informal trust accounts as POD accounts. Formal revocable trust accounts are established in connection with a formal written revocable trust document. They are increasingly popular trusts created for estate planning purposes and are often referred to as: Living trusts, family trusts, marital trusts, survivor's trusts, by-pass trusts, generation-skipping trusts, AB trusts or special needs trusts. Throughout this preamble, NCUA will refer to all formal revocable trusts as living trusts. Like an informal revocable trust, a living trust is created by a member, also known as a grantor or settlor, over which the member as owner retains control during his or her lifetime. Upon the owner's death, the trust generally becomes irrevocable. NCUA insures POD and living trust accounts under § 745.4 of its share insurance rules. 12 CFR 745.4.

NCUA's rules provide that all revocable trust accounts (both POD accounts and living trust accounts) are insured up to \$100,000 per "qualifying beneficiary" designated by the owner of the account. *Id.* If there are multiple owners of a revocable trust account, coverage is available separately for each owner, per qualifying beneficiary as to each owner. Qualifying beneficiaries are defined as the owner's spouse, children, grandchildren, parents and siblings. 12 CFR 745.4(b).

The per-qualifying beneficiary coverage available on revocable trust accounts is separate from the insurance coverage afforded to members in connection with other accounts they own in other ownership capacities at the same NCUA-insured credit union. For example, if a member has a single-ownership account with a balance of \$100,000 and a POD account (naming at least one qualifying beneficiary) with a balance of \$100,000 at the same NCUA-insured credit union, both accounts would be insured separately for a combined coverage amount of \$200,000.

Under our current rules, separate, per-beneficiary insurance coverage is available for revocable trust accounts only if the account satisfies certain requirements including: (1) The account must evidence the owner's intent that the funds shall belong to the designated beneficiaries upon the owner's death; (2) each beneficiary must be a qualifying beneficiary; and (3) for POD accounts, the beneficiaries must be specifically named in the account records of the credit union. Under the current rules, the beneficiaries of a living trust need not be indicated in the credit union's records. 12 CFR 745.4(e).

If a revocable trust account owner names one or more non-qualifying beneficiaries in the account or trust, the funds corresponding to those non-qualifying beneficiaries are considered the single-ownership funds of the owner and insured under that category of coverage. For example, assume a member owns a POD account (and no other accounts at the same credit union) that names his spouse and a friend as beneficiaries. The account has a balance of \$200,000. The coverage would be \$100,000 under the revocable trust coverage rules because he has named one qualifying beneficiary, and \$100,000 would be insured under the single-ownership coverage rules because the funds attributable to the non-qualifying beneficiary (the friend) would be considered the owner's single-ownership funds and thus insured under that category of ownership. If the account owner in this example also had a single-ownership account with a balance of \$50,000, then the \$100,000 (attributable to the non-qualifying beneficiary) from his POD account would be added to the \$50,000 held in the single-ownership account and insured to a limit of \$100,000. Thus, \$50,000 would be uninsured.

As discussed above, both POD accounts and living trust accounts are types of revocable trust accounts insured under the revocable trust account category in NCUA's share insurance rules. Consequently, all funds that a member holds in living trust accounts and POD accounts naming the same beneficiaries are aggregated for insurance purposes and insured to the applicable coverage limits. For example, if a member has a living trust account for \$200,000 naming his children, A and B, and also has a \$200,000 POD account naming A and B, the combined coverage on the two aggregated accounts would be \$200,000 in total, not \$200,000 per account.

II. The Interim Rule

A. Overview

In this rulemaking, NCUA seeks to make the insurance coverage rules for revocable trust accounts easy to understand and apply, without decreasing coverage currently available for revocable trust account owners, and retain reasonable limitations on coverage levels for revocable trust account owners. Under the interim rule, a trust account owner with up to \$500,000 in revocable trust accounts at one NCUA-insured institution is insured up to \$100,000 per beneficiary. NCUA believes this is the scenario that will apply to the vast majority of

¹ Because of the complexities of living trusts, NCUA's insurance determinations on those accounts could be time consuming and delay members receiving their insured account proceeds.

revocable trust account owners. Revocable trust account owners with more than \$500,000 in those accounts and more than five different beneficiaries named in the trust(s) are insured differently. They will be insured for the greater of either: \$500,000 or the aggregate amount of all the beneficiaries' interests in the trust(s), limited to \$100,000 per beneficiary. Under the interim final rule, coverage is based on the existence of *any* beneficiary named in the revocable trust, as long as the beneficiary is a natural person, or a charity or other non-profit organization. If in establishing a POD account, the owner names a living trust as the beneficiary, we will consider the beneficiaries of the trust to be the beneficiaries of the POD account. As discussed below, under the interim rule the concept of "qualifying beneficiaries" is eliminated. For an account owner with combined revocable trust account balances of \$500,000 or less, the maximum available coverage would be determined simply by multiplying the number of beneficiaries by \$100,000.

A living trust account with a balance of \$400,000, for example, would be insured for up to \$400,000 as long as there are at least four beneficiaries named in the trust.² Different proportional ownership interests of the beneficiaries in the trust assets would not affect the share insurance coverage. So, in this example, the maximum coverage would be \$400,000 even if the trust provided that beneficiaries A and B are entitled to twenty percent each of the trust assets and beneficiaries C and D are entitled to thirty percent each of the trust assets. As under the current rules, however, a member would receive a combined maximum coverage amount of \$100,000 for the same beneficiary named in more than one revocable trust account he or she owns at one credit union. For example, if a member has a POD account naming her son as a beneficiary and a living trust account at the same credit union naming the same son as a beneficiary, the member would be entitled to no more than \$100,000 with respect to having named her son as a beneficiary of her revocable trust accounts.

B. Eliminating the Concept of "Qualifying Beneficiaries"

As explained above, previous revocable trust account coverage was based, in large part, on the number of qualifying beneficiaries named in the trust(s). In the most recent revocable

trust account rule amended by this interim final rule, qualifying beneficiaries were defined as the revocable trust account owner's spouse, children, grandchildren, parents and siblings. 12 CFR 745.4(b). In previous versions of that rule, the definition included only the owner's spouse, children and grandchildren. The rationale for expanding the definition of qualifying beneficiaries to include the account owner's parents and siblings was to recognize other family members likely to be named in a person's revocable trust(s).

Before and since the expansion of the definition of qualifying beneficiaries, members and industry participants have questioned the fairness of limiting the coverage on revocable trust accounts to only certain beneficiaries. Many have stated the definition of qualifying beneficiaries should include, among others, an account holder's nieces and nephews, in-laws, great-grandchildren, cousins, friends and charities. Historically, in response to these complaints, NCUA has taken the position that there must be a reasonable limitation of the amount of coverage available on revocable trust accounts, otherwise, there would be potentially unlimited coverage under this account category. Accordingly, NCUA has been reluctant to amend the rules to provide coverage for any beneficiary(ies) named in a revocable trust without limitation. Under the interim rule, however, the NCUA believes that it can achieve greater fairness under the revocable trust rules by basing coverage on the naming of any beneficiary in a revocable trust, but concurrently imposing the coverage qualifications discussed below on accounts over \$500,000.

In addition to addressing the fairness issue, eliminating the concept of "qualifying beneficiaries" makes the coverage rules easier to understand. Members and credit unions no longer need to know who is a qualifying beneficiary and who is not. Also, this revision will obviate the need for NCUA claims agents, upon a credit union's failure to confirm that a beneficiary named in a revocable trust account is a "qualifying beneficiary." Thus, under the interim rule, the NCUA anticipates being able to make quicker share insurance determinations on revocable trust accounts, if necessary.

C. Accounts With Aggregate Balances of \$500,000 or Less; Determining Coverage Without the Necessity of Discerning Each Beneficiary's Interest in the Trust(s)

Previously, one of the most complex and confusing aspects of determining

revocable trust account coverage was having to discern and consider unequal beneficial interests in revocable trusts. This issue typically arises in the context of a living trust that, for example, provides either varying lump-sum payments for designated beneficiaries or different percentage interests in trust assets to certain beneficiaries, or different "remainder" interests in the assets to the same or other beneficiaries. The method for determining coverage in some situations involving unequal beneficial interests necessitates the formulation and solving of simultaneous equations. Credit unions and members alike find applying these equations far too complex. NCUA agrees. Accordingly, a key component of the interim rule is the ability to determine coverage available to account owners without regard to unequal interests of the beneficiaries named in the revocable trust(s). NCUA believes this rule change, coupled with the recognition of all beneficiaries, will make the revocable trust account rules simpler and more transparent.

D. Retaining Current Coverage Levels for Revocable Trust Accounts With More Than \$500,000 and More Than Five Beneficiaries Named in the Trust(s)

NCUA believes the vast majority of revocable trust account owners have less than \$500,000 in revocable trust accounts at one NCUA-insured institution. In this scenario, under the interim rule, coverage for an account owner's revocable trust accounts will be determined simply by multiplying the number of different beneficiaries named in the trust(s) by \$100,000.

To set reasonable limits on the maximum coverage available to revocable trust account owners and also retain the coverage levels available to revocable trust account owners under previous rules, the interim rule provides special treatment for members with revocable trust accounts over \$500,000 naming more than five beneficiaries. Under the interim rule, revocable trust account owners with more than \$500,000 and more than five beneficiaries named in the trusts are insured for the greater of either: \$500,000 or the aggregate amount of all the beneficiaries' interests in the trust(s), limited to \$100,000 per beneficiary. This coverage is no less than the coverage afforded to such account owners under previous rules, particularly because under the interim rule the coverage is based on the number of beneficiaries, not the number of qualifying beneficiaries. Also, as discussed below, under the interim rule, life-estate interest holders are deemed to

² This assumes the account owner has no other revocable trust accounts at the same credit union.

have a \$100,000 interest in the trust assets.

For example, assume a member has a living trust account that provides a life estate interest for the member's spouse, \$15,000 for his college alma mater, \$5,000 for each of three brothers and the remaining amount to his friend. The balance in the account is \$600,000. The analysis begins with recognizing the account balance exceeds \$500,000 and the number of beneficiaries exceeds five. Accordingly, under the interim rule, the maximum coverage would be the greater of either: \$500,000 or the aggregate beneficial interests of all the beneficiaries (up to a limit of \$100,000 per beneficiary). The beneficial interests are: \$100,000 for the spouse's life estate interest, \$15,000 for the college, \$5,000 for each brother (totaling \$15,000), and \$100,000 for the friend (because of the per-beneficiary limitation of \$100,000). The total beneficial interests, therefore, are \$230,000. Hence, the maximum coverage afforded to the account owner would be \$500,000, the greater of \$500,000 or \$230,000.

NCUA believes basing the coverage of trust accounts in excess of \$500,000 with more than five different beneficiaries, on the ownership interest of each beneficiary named in the applicable trust(s) would prevent the potential of having to provide unlimited coverage with respect to revocable trust accounts. Without such a limitation, a member could name a limitless number of beneficiaries each with a nominal interest in the trust and obtain coverage up to \$100,000 for naming each such beneficiary. For example, a revocable trust account held in connection with a trust entitling one beneficiary to \$1 million and entitling each of nine other beneficiaries to \$1 would be insured for \$1 million, without the limitation discussed above being imposed as part of the interim rule.

E. Treatment of Life-Estate Interests

Another complicating factor in determining the coverage for living trust accounts is determining the value of life estate interests. A life estate interest usually means the life-estate beneficiary is entitled to the income on the trust assets during his or her lifetime. A large percentage of living trusts provide a life estate interest for one or more beneficiaries. The most typical situation is where a married person creates a trust providing a life estate interest for his or her surviving spouse and a remainder interest for their children. NCUA's previous rules provide that, in such situations, each life-estate holder and each remainder-man (also known as residuary beneficiaries) is deemed to

have an equal interest in the trust assets for account insurance purposes. 12 CFR 745.4(e). This rule has proven difficult to apply, especially where the living trust provides for lump-sum gifts for certain beneficiaries, life estate interests for others and different percentage interests for the remainder-men, who may be the same as or different from the other beneficiaries. To simplify the coverage rules, the interim rule revises the previous valuation method for life estate interests by deeming each such interest to be \$100,000, for purposes of determining deposit insurance coverage. The example above, involving a trust providing for a spousal life estate interest and bequests to the owner's college alma mater, brothers and friend, demonstrates how the interim rule would apply to a living trust providing for a life-estate interest.

F. Treatment of Irrevocable Trusts Springing From a Revocable Trust

Another complexity in determining coverage for living trust accounts is that, when it is created, a living trust is a revocable trust but, when the owner dies, the trust becomes irrevocable.³ At that stage in the lifecycle of the living trust, the funds corresponding to the irrevocable trust are insured under NCUA's rules for irrevocable trust accounts.⁴ Under those rules, coverage is based on the *non-contingent* interest of each beneficiary named in the trust. In effect, when a living trust evolves from a revocable trust to an irrevocable trust the insurance coverage available on the account is based on a different set of rules, the irrevocable trust account rules. As such, the coverage on the account often decreases from what it had been when the trust was insured solely under the revocable trust rules.

To eliminate this complexity and the confusion it generates, the interim final rule provides that the methods for determining the coverage of the living trust account will remain the same when the trust (or part of the trust) converts to an irrevocable trust. For example, a grantor has a living trust account naming three beneficiaries, each of whom receives a specified share of the trust assets if he or she graduates from college by age 25. Under the previous insurance rules, when the grantor is alive (meaning that the trust is still a revocable trust) the maximum coverage on the account is \$300,000—one grantor times three beneficiaries times \$100,000. Also under the previous

rules, upon the grantor's death (allowing for the six-month grace period during which coverage would remain the same), the coverage reduces to \$100,000 (if none of the beneficiaries has graduated from college yet) because of the *contingent* nature of the beneficial interests provided for in the trust. Under the interim rule, contingencies would continue to be irrelevant for coverage purposes after the grantor's death, even though the trust has evolved into an irrevocable trust. In this example, under the interim rule the coverage would still be up to \$300,000.

NCUA believes the continuity of coverage provided for under this component of the interim rule will greatly simplify previous methods for determining coverage for living trust accounts. It is important to note, however, that under the interim rule the coverage on a living trust account could still change during the lifecycle of the trust. For example, when both grantors in a co-grantor trust are alive, the maximum coverage on the account would be \$1,000,000, because the formula for determining coverage would be: two grantors times five beneficiaries times \$100,000.⁵ If one of the grantors dies, then the maximum coverage would be one grantor times five beneficiaries times \$100,000.⁶ Coverage would likewise decrease if one or more of the beneficiaries named in the revocable trust died, assuming the death of the beneficiary(ies) would cause the total number of beneficiaries to drop below five.

G. Effective Date of the Interim Rule

The interim rule is effective on October 3, 2008, the date on which the NCUA Board approved the interim rule by notation vote. 12 CFR 791.4. It is also the date this interim rule was filed for public inspection with the Office of the Federal Register. In this regard, NCUA invokes the "good cause" exception to the requirements in the Administrative Procedure Act⁷ (APA) that, before a rulemaking can be finalized, it must first be issued for public comment and, once finalized, must have a delayed effective date of thirty days from the publication date. NCUA believes good cause exists for making the interim rule effective immediately because, based on recent experience, it is clear that many members and credit unions do not fully

³ For jointly-owned living trusts, upon the death of one of the owners, typically part of the trust remains revocable and part becomes irrevocable.

⁴ 12 CFR 745.9–1.

⁵ This assumes neither grantor has any other revocable trust accounts at the same insured institution.

⁶ Of course, NCUA's rules provide for a six-month grace period after the death of a member during which the coverage would be the same as if the member (grantor) were still alive. 12 CFR 745.2(e).

⁷ 5 U.S.C. 553.

understand the insurance rules for revocable trust accounts. Also, the Federal Deposit Insurance Corporation has recently issued an almost identical interim rule and it is important for NCUA to do the same immediately to maintain parity between the nation's two federal deposit/share insurance programs. The interim rule simplifies the coverage rules for revocable trust accounts and, therefore, will provide greater certainty to members and credit unions as to how and to what extent revocable trust accounts are insured.

Importantly, under the interim rule, no member will be insured for an amount less than he or she would have been entitled to under the previous revocable trust account rules. Some members will be entitled to greater coverage under the interim rule than under previous rules, especially because the interim rule eliminates the requirement that a beneficiary be a "qualifying beneficiary" for the account owner to be insured on a per-beneficiary basis. Moreover, NCUA believes the interim final rule will result in faster share insurance determinations after a credit union closing and will help improve public confidence in the credit union system.

For these reasons, NCUA has determined that the public notice and participation that ordinarily are required by the APA before a regulation may take effect would, in this case, be contrary to the public interest and that good cause exists for waiving the customary 30-day delayed effective date.⁸ Nevertheless, NCUA desires to have the benefit of public comment before adopting a permanent final rule and invites interested parties to submit comments during a 60-day comment period. In adopting the final regulation, NCUA will revise the interim final rule, if appropriate, in light of the comments received.

III. Request for Comments

NCUA requests comments on all aspects of the proposed rulemaking including comments on: (1) Whether "over \$500,000" is the proper threshold for determining coverage for revocable trust account owners based on the beneficial interests of the trust beneficiaries; (2) whether NCUA's irrevocable trust account rules, 12 CFR 745.9-1, should be revised so that all trusts are covered by substantially the same rules; and (3) what effect the interim rule will have on the level of insured shares.

IV. Regulatory Procedures

Regulatory Flexibility Act

The Regulatory Flexibility Act requires NCUA to prepare an analysis to describe any significant economic impact a rule may have on a substantial number of small entities (primarily those under ten million dollars in assets). This interim final rule simplifies and clarifies certain share insurance coverages. Accordingly, it will not have a significant economic impact on a substantial number of small credit unions, and therefore, no regulatory flexibility analysis is required.

Paperwork Reduction Act

NCUA has determined that this rule will not increase paperwork requirements under the Paperwork Reduction Act of 1995 and regulations of the Office of Management and Budget.

The Treasury and General Government Appropriations Act, 1999—Assessment of Federal Regulations and Policies on Families

NCUA has determined that this rule will not affect family well-being within the meaning of section 654 of the Treasury and General Government Appropriations Act, 1999, Pub. L. 105-277, 112 Stat. 2681 (1998).

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104-121) (SBREFA) provides generally for congressional review of agency rules. A reporting requirement is triggered in instances where NCUA issues a final rule as defined by Section 551 of the APA. 5 U.S.C. 551. NCUA does not believe this interim final rule is a "major rule" within the meaning of the relevant sections of SBREFA. NCUA has submitted the rule to the Office of Management and Budget for its determination in that regard.

Agency Regulatory Goal

NCUA's goal is to promulgate clear and understandable regulations that impose minimal regulatory burden. We request your comments on whether this rule is understandable and minimally intrusive.

List of Subjects

12 CFR Part 745

Credit unions, Share insurance.

By the National Credit Union Administration Board, this 3rd day of October 2008.

Paul Peterson,

Acting Secretary of the Board.

■ For the reasons discussed above, NCUA amends 12 CFR part 745 as follows:

PART 745—SHARE INSURANCE AND APPENDIX

■ 1. The authority citation for part 745 continues to read as follows:

Authority: 12 U.S.C. 1752(5), 1757, 1765, 1766, 1781, 1782, 1787, 1789.

■ 2. Section 745.4 is revised to read as follows:

§ 745.4 Revocable trust accounts.

(a) *General rule.* Except as provided in paragraph (e) of this section, the funds owned by a member and deposited into one or more accounts with respect to which the owner evidences an intention that upon his or her death the funds shall belong to one or more beneficiaries shall be separately insured from other types of accounts the owner has at the same NCUA-insured credit union in an amount equal to the total number of different beneficiaries named in the account(s) multiplied by the SMSIA. This section applies to all accounts held in connection with informal and formal testamentary revocable trusts. Such informal trusts are commonly referred to as *payable-on-death accounts*, *in-trust-for* accounts or *Totten Trust* accounts, and such formal trusts are commonly referred to as *living trusts* or *family trusts*. **Example 1:** A member has a living trust account with four beneficiaries named in the trust. The account owner has no other revocable trust accounts at the same NCUA-insured credit union. The maximum insurance coverage would be \$400,000, determined by multiplying 4 (the number of beneficiaries) times \$100,000 (the current SMSIA). **Example 2:** A member has a payable-on-death account naming his niece and cousin as beneficiaries and, at the same NCUA-insured credit union, has another payable-on-death account naming the same niece and a friend as beneficiaries. The maximum coverage available to the account owner would be \$300,000. This is because the account owner has named three different beneficiaries in the revocable trust accounts. The naming of the same beneficiary in more than one revocable trust account, whether a payable-on-death account or living trust account, does not increase the total coverage amount.

(b) *Required intention.* The required intention in paragraph (a) of this section

⁸ *Id.*

that upon the owner's death the funds shall belong to one or more beneficiaries must be manifested in the title of the account or elsewhere in the account records of the credit union using commonly accepted terms such as, but not limited to, *in trust for*, *as trustee for*, *payable-on-death* to, or any acronym therefore, or by listing one or more beneficiaries in the account records of the credit union. In addition, for informal revocable trust accounts, the beneficiaries must be specifically named in the account records of the credit union. The settlor of a revocable trust shall be presumed to own the funds deposited into the account.

(c) *Definition of beneficiary.* For purposes of this section, a beneficiary includes natural persons as well as charitable organizations and other non-profit entities recognized as such under the Internal Revenue Code of 1986.

(d) *Interests of beneficiaries outside the definition of beneficiary in this section.* If a beneficiary named in a trust covered by this section does not meet the definition of *beneficiary* in paragraph (c) of this section, the funds corresponding to that beneficiary shall be treated as the individually owned (single ownership) funds of the owner(s). As such, they shall be aggregated with any other single ownership accounts of such owner(s) and insured up to the SMSIA per owner. **Example:** if a member establishes an account payable-on-death to a pet, the account would be insured as a single-ownership account.

(e) *Revocable trust accounts with aggregate balances exceeding five times the SMSIA and naming more than five different beneficiaries.* Notwithstanding the general coverage provisions in paragraph (a) of this section, for funds owned by a member in one or more revocable trust accounts naming more than five different beneficiaries and whose aggregate balance is more than five times the SMSIA, the maximum revocable trust account coverage for the account owner shall be the greater of either: five times the SMSIA or the aggregate amount of the ownership interests of each different beneficiary named in the trusts, to a limit of the SMSIA per different beneficiary.

Example: A has a living trust account with a balance of \$600,000. Under the terms of the trust, upon A's death, A's three children are each entitled to \$50,000, A's friend is entitled to \$5,000 and a designated charity is entitled to \$70,000. The trust also provides that the remainder of the trust assets shall belong to A's spouse. In this case, because the balance of the account is over \$500,000, which is five times the

current SMSIA of \$100,000, and there are more than five different beneficiaries named in the trust, the maximum coverage available to A would be the greater of: \$500,000 or the aggregate of each different beneficiary's interest to a limit of \$100,000 per beneficiary. The beneficial interests in the trust considered for purposes of determining coverage are: \$50,000 for each of the children (totaling \$150,000), \$5,000 for the friend, \$70,000 for the charity, and \$100,000 for the spouse (\$375,000, subject to the \$100,000 limit per beneficiary). The aggregate beneficial interests, thus, are \$325,000. Hence, the maximum coverage afforded to the account owner would be \$500,000, the greater of \$500,000 or \$325,000.)

(f) *Joint revocable trust accounts.* (1) Where an account described in paragraph (a) of this section is established by more than one owner, the respective interest of each account owner (which shall be deemed equal) shall be insured separately, per different beneficiary, up to the SMSIA, subject to the limitation imposed in paragraph (e) of this section. **Example 1:** A and B, two individuals, establish a payable-on-death account naming their three nieces as beneficiaries. Neither A nor B has any other revocable trust accounts at the same NCUA-insured credit union. The maximum coverage afforded to A and B would be \$600,000, determined by multiplying the number of owners (2) times the SMSIA (currently \$100,000) times the number of different beneficiaries (3). In this example, A would be entitled to revocable trust coverage of \$300,000 and B would be entitled to revocable trust coverage of \$300,000. **Example 2:** A and B, two individuals, establish a payable-on-death account naming their two children, two cousins and a charity as beneficiaries. The balance in the account is \$700,000. Neither A nor B has any other revocable trust accounts at the same NCUA-insured credit union. The maximum coverage would be determined under paragraph (a) of this section by multiplying the number of account owners (2) times the number of different beneficiaries (5) times \$100,000, or \$1 million. Because the account balance is less than the maximum coverage amount, the account would be fully insured.

Example 3: A and B, two individuals, establish a living trust account with a balance of \$1.5 million. Under the terms of the trust, upon the death of both A and B, each of A's and B's three children is entitled to \$200,000, B's cousin is entitled to \$150,000, A's friend is entitled to \$30,000, and the remaining amount (\$720,000) goes to a charity.

Under paragraph (e) of this section, the maximum coverage, as to each joint account owner, would be the greater of \$500,000 or the aggregate amount (as to each joint owner) of the interest of each different beneficiary named in the trust, to a limit of \$100,000 per account owner per beneficiary. The beneficial interests in the trust considered for purposes of determining coverage for account owner A are: \$300,000 for the children (three times \$100,000), \$75,000 for the cousin, \$15,000 for the friend, and \$100,000 for the charity (\$360,000 subject to the \$100,000 per-beneficiary limitation). As to A, the aggregate amount of the beneficial interests eligible for share insurance coverage is \$490,000. Hence, the maximum coverage afforded to joint account owner A would be \$500,000, the greater of \$500,000 or \$490,000 (the aggregate of all the beneficial interests attributable to A, limited to \$100,000 per beneficiary). The same analysis and coverage determination also would apply to B.

(2) Notwithstanding paragraph (f)(1) of this section, where the owners of a joint revocable trust account are themselves the sole beneficiaries of the corresponding trust, the account shall be insured as a joint account under section 745.8 and shall not be insured under the provisions of this section. **Example:** If A and B establish a payable-on-death account naming themselves as the sole beneficiaries of the account, the account will be insured as a joint account because the account does not satisfy the intent requirement under paragraph (a) of this section that the funds in the account belong to the named beneficiaries upon the owners' death. The beneficiaries are in fact the actual owners of the funds during the account owners' lifetimes.

(g) For accounts held in connection with a living trust that provides for a life-estate interest for designated beneficiaries, NCUA shall value each such life estate interest as the SMSIA for purposes of determining the insurance coverage available to the account owner.

(h) *Revocable trusts that become irrevocable trusts.* Notwithstanding the provisions in section 745.9–1 on the insurance coverage of irrevocable trust accounts, a revocable trust account shall continue to be insured under the provisions of this section even if the corresponding revocable trust, upon the death of one or more of the owners thereof, converts, in part or entirely, to an irrevocable trust. **Example:** Assume A and B have a trust account in connection with a living trust, of which they are joint grantors. If upon the death of either A or B the trust transforms into an irrevocable trust as to the deceased

grantor's ownership in the trust, the account will continue to be insured under the provisions of this section.

(i) This section shall be effective as of October 14, 2008 for all existing and future revocable trust accounts and for existing and future irrevocable trust accounts resulting from formal revocable trust accounts.

Appendix to Part 745—[Amended]

■ 3. The appendix to part 745 is amended by removing Section B and by redesignating Sections C through G as B through F respectively.

[FR Doc. E8-23922 Filed 10-10-08; 8:45 am]

BILLING CODE 7535-01-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA-2008-0983; Airspace Docket No. 08-ASO-14]

Modification of Class D Airspace; MacDill AFB, FL

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Direct final rule, request for comments.

SUMMARY: This action modifies Class D Airspace at MacDill AFB, FL. The MacDill AFB Air Traffic Control Tower no longer operates on a full time basis; therefore, the Class D Airspace associated with the tower operations must be modified to reflect the times when the controlled airspace is effective. This action enhances the National Airspace System by relaxing the restrictions to the controlled airspace areas in the vicinity of MacDill AFB, FL.

DATES: Effective 0901 UTC, January 15, 2009. The Director of the Federal Register approves this incorporation by reference action under title 1, Code of Federal Regulations, part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments. Comments for inclusion in the Rules Docket must be received on or before November 28, 2008.

ADDRESSES: Send comments on this rule to: U.S. Department of Transportation, Docket Operations, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001; *Telephone:* 1-800-647-5527; *Fax:* 202-493-2251. You must identify the Docket Number FAA-2008-0983; Airspace Docket No. 08-ASO-14, at the beginning of your

comments. You may also submit and review received comments through the Internet at <http://www.regulations.gov>.

You may review the public docket containing the rule, any comments received, and any final disposition in person in the Dockets Office (see **ADDRESSES** section for address and phone number) between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays. An informal docket may also be examined during normal business hours at the office of the Eastern Service Center, Federal Aviation Administration, Room 210, 1701 Columbia Avenue, College Park, Georgia 30337.

FOR FURTHER INFORMATION CONTACT:

Melinda Giddens, Operations Support Group, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; *Telephone* (404) 305-5610, *Fax* 404-305-5572.

SUPPLEMENTARY INFORMATION:

The Direct Final Rule Procedure

The FAA anticipates that this regulation will not result in adverse or negative comments, and, therefore, issues it as a direct final rule. The FAA has determined that this rule only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. Unless a written adverse or negative comment or a written notice of intent to submit an adverse or negative comment is received within the comment period, the regulation will become effective on the date specified above. After the close of the comment period, the FAA will publish a document in the **Federal Register** indicating that no adverse or negative comments were received and confirming the effective date. If the FAA receives, within the comment period, an adverse or negative comment, or written notice of intent to submit such a comment, a document withdrawing the direct final rule will be published in the **Federal Register**, and a notice of proposed rulemaking may be published with a new comment period.

Comments Invited

Although this action is in the form of a direct final rule, and was not preceded by a notice of proposed rulemaking, interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. The direct final rule is used in this case to facilitate the timing of the charting schedule and enhance the operation at the airport, while still allowing and requesting public comment on this rulemaking

action. An electronic copy of this document may be downloaded from and comments submitted through <http://www.regulations.gov>. Communications should identify both docket numbers and be submitted in triplicate to the address specified under the caption **ADDRESSES** above or through the Web site. All communications received on or before the closing date for comments will be considered, and this rule may be amended or withdrawn in light of the comments received. Recently published rulemaking documents can also be accessed through the FAA's Web page at <http://www.faa.gov> or the **Federal Register's** Web page at <http://www.gpoaccess.gov/fr/index.html>.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of this action and determining whether additional rulemaking action would be needed. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. Those wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. FAA-2008-0983; Airspace Docket No. 08-ASO-14." The postcard will be date stamped and returned to the commenter.

The Rule

This amendment to Title 14, Code of Federal Regulations (14 CFR) part 71 modifies Class D airspace at MacDill AFB, FL, by adding to the description of the controlled airspace area the hours of operation of the Air Traffic Control Tower (ATCT) at MacDill AFB. The ATCT at MacDill AFB operates on an other than full-time basis and, therefore, the Class D Airspace associated with the tower operations must be modified to reflect the times when the controlled airspace is effective. Controlled airspace extending upward from the surface of the Earth is required to encompass the airspace necessary for instrument approaches for aircraft operating under Instrument Flight Rules (IFR). The current Class D airspace areas are sufficient for these approaches, so no additional controlled airspace must be defined. Effective times for the MacDill AFB Class D airspace areas will be published first by Notice to Airman, and then thereafter published continuously

in the Airport/Facility Directory. The FAA is amending Title 14, Code of Federal Regulations (14 CFR) part 71 by modifying the Class D airspace description at MacDill AFB to reflect the effective times of the Air Traffic Control Tower's operation. Designations for Class D airspace areas extending upward from the surface of the Earth are published in FAA Order 7400.9R, signed August 15, 2007 effective September 15, 2007, which is incorporated by reference in 14 CFR part 71.1. The Class D designations listed in this document will be published subsequently in the Order.

Agency Findings

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current, is non-controversial and unlikely to result in adverse or negative comments. It, therefore, (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA's authority to issue rules regarding aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103. Under that section, the FAA is charged with prescribing regulations to assign the use of airspace necessary to ensure the safety of aircraft and the efficient use of airspace. This regulation is within the scope of that authority as

it modifies controlled airspace at MacDill AFB, FL.

Lists of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (Air).

Adoption of the Amendment

■ In consideration of the foregoing, the Federal Aviation Administration amends 14 CFR Part 71 as follows:

PART 71—DESIGNATION OF CLASS A, B, C, D AND E AIRSPACE AREAS; AIR TRAFFIC SERVICE ROUTES; AND REPORTING POINTS

■ 1. The authority citation for Part 71 continues to read as follows:

Authority: 49 U.S.C. 106(g); 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR, 1959–1963 Comp., p. 389.

§ 71.1 [Amended]

■ 2. The incorporation by reference in 14 CFR 71.1 of Federal Aviation Administration Order 7400.9R, Airspace Designations and Reporting Points, signed August 15, 2007, effective September 15, 2007, is amended as follows:

Paragraph 5000 Class D Airspace

* * * * *

ASO FL D MacDill AFB, FL [Revised]

MacDill AFB, FL

(Lat. 27°50'58" N., long 82°31'16" W.)

Albert Whitted Airport

(Lat. 27°45'54" N., long 82°37'37" W.)

That airspace extending upward from the surface of the Earth to and including 2,600 feet MSL within a 4.5-mile radius of MacDill AFB; excluding the portion within the Tampa International Airport, FL, Class B airspace area; excluding that portion southwest of a line connecting the 2 points of intersection with a 4-mile radius circle centered on the Albert Whitted Airport. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

* * * * *

Issued in College Park, Georgia, on September 26, 2008.

Mark D. Ward,

Manager, Operations Support Group, Eastern Service Center, Air Traffic Organization.

[FR Doc. E8–24109 Filed 10–10–08; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 97

[Docket No. 30629; Amdt. No 3288]

Standard Instrument Approach Procedures, and Takeoff Minimums and Obstacle Departure Procedures; Miscellaneous Amendments

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs) and associated Takeoff Minimums and Obstacle Departure Procedures for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, adding new obstacles, or changing air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

DATES: This rule is effective October 14, 2008. The compliance date for each SIAP, associated Takeoff Minimums, and ODP is specified in the amendatory provisions.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 14, 2008.

ADDRESSES: Availability of matters incorporated by reference in the amendment is as follows:

For Examination—

1. FAA Rules Docket, FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591;

2. The FAA Regional Office of the region in which the affected airport is located;

3. The National Flight Procedures Office, 6500 South MacArthur Blvd., Oklahoma City, OK 73169, or

4. The National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

*Availability—*All SIAPs and Takeoff Minimums and ODPs are available

online free of charge. Visit <http://www.nfdc.faa.gov> to register. Additionally, individual SIAP and Takeoff Minimums and ODP copies may be obtained from:

1. FAA Public Inquiry Center (APA-200), FAA Headquarters Building, 800 Independence Avenue, SW., Washington, DC 20591; or
2. The FAA Regional Office of the region in which the affected airport is located.

FOR FURTHER INFORMATION CONTACT:

Harry J. Hodges, Flight Procedure Standards Branch (AFS-420), Flight Technologies and Programs Divisions, Flight Standards Service, Federal Aviation Administration, Mike Monroney Aeronautical Center, 6500 South MacArthur Blvd., Oklahoma City, OK 73169 (Mail Address: P.O. Box 25082, Oklahoma City, OK 73125) Telephone: (405) 954-4164.

SUPPLEMENTARY INFORMATION: This rule amends Title 14 of the Code of Federal Regulations, Part 97 (14 CFR part 97), by establishing, amending, suspending, or revoking SIAPs, Takeoff Minimums and/or ODPs. The complete regulators description of each SIAP and its associated Takeoff Minimums or ODP for an identified airport is listed on FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR part 51, and 14 CFR part 97.20. The applicable FAA Forms are FAA Forms 8260-3, 8260-4, 8260-5, 8260-15A, and 8260-15B when required by an entry on 8260-15A.

The large number of SIAPs, Takeoff Minimums and ODPs, in addition to their complex nature and the need for a special format make publication in the **Federal Register** expensive and impractical. Furthermore, airmen do not use the regulatory text of the SIAPs, Takeoff Minimums or ODPs, but instead refer to their depiction on charts printed by publishers of aeronautical materials. The advantages of incorporation by reference are realized and publication of the complete description of each SIAP, Takeoff Minimums and ODP listed on FAA forms is unnecessary. This amendment provides the affected CFR sections and specifies the types of SIAPs and the effective dates of the associated Takeoff Minimums and ODPs. This amendment also identifies the airport and its location, the procedure, and the amendment number.

The Rule

This amendment to 14 CFR part 97 is effective upon publication of each separate SIAP, Takeoff Minimums and ODP as contained in the transmittal. Some SIAP and Takeoff Minimums and

textual ODP amendments may have been issued previously by the FAA in a Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of immediate flight safety relating directly to published aeronautical charts. The circumstances which created the need for some SIAP and Takeoff Minimums and ODP amendments may require making them effective in less than 30 days. For the remaining SIAPs and Takeoff Minimums and ODPs, an effective date at least 30 days after publication is provided.

Further, the SIAPs and Takeoff Minimums and ODPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Procedures (TERPS). In developing these SIAPs and Takeoff Minimums and ODPs, the TERPS criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs, Takeoff Minimums and ODPs, and safety in air commerce, I find that notice and public procedures before adopting these SIAPs, Takeoff Minimums and ODPs are impracticable and contrary to the public interest and, where applicable, that good cause exists for making some SIAPs effective in less than 30 days.

Conclusion

The FAA has determined that this regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore—(1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. For the same reason, the FAA certifies that this amendment will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 97

Air Traffic Control, Airports, Incorporation by reference, and Navigation (Air).

Issued in Washington, DC, on September 19, 2008.

James J. Ballough,

Director, Flight Standards Service.

Adoption of the Amendment

■ Accordingly, pursuant to the authority delegated to me, Title 14, Code of Federal Regulations, Part 97 (14 CFR part 97) is amended by establishing, amending, suspending, or revoking Standard Instrument Approach Procedures and/or Takeoff Minimums and/or Obstacle Departure Procedures effective at 0902 UTC on the dates specified, as follows:

PART 97—STANDARD INSTRUMENT APPROACH PROCEDURES

■ 1. The authority citation for part 97 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40106, 40113, 40114, 40120, 44502, 44514, 44701, 44719, 44721–44722.

■ 2. Part 97 is amended to read as follows:

Effective 23 OCT 2008

Lakeland, FL, Lakeland Linder Regional,
NDB RWY 5, Amdt 4
Lakeland, FL, Lakeland Linder Regional,
VOR RWY 9, Amdt 4

Effective 20 NOV 2008

Bethel, AK, Bethel, ILS OR LOC/DME RWY 19R, Amdt 6
Bethel, AK, Bethel, LOC/DME BC RWY 1L, Amdt 6
Bethel, AK, Bethel, RNAV (GPS) RWY 1L, Amdt 1
Bethel, AK, Bethel, RNAV (GPS) RWY 19R, Amdt 1
Bethel, AK, Bethel, RNAV (GPS)—A, Amdt 1
Bethel, AK, Bethel, Takeoff Minimums and Obstacle DP, Amdt 3
Bethel, AK, Bethel, VOR/DME RWY 1L, Amdt 2
Bethel, AK, Bethel, VOR/DME RWY 19R, Amdt 2
Napakiak, AK, Napakiak, RNAV (GPS) RWY 16, Orig
Napakiak, AK, Napakiak, RNAV (GPS) RWY 34, Orig
Napakiak, AK, Napakiak, Takeoff Minimums and Obstacle DP, Orig
Shageluk, AK, Shageluk, RNAV (GPS) RWY 16, Orig
Shageluk, AK, Shageluk, RNAV (GPS) RWY 34, Orig
Shageluk, AK, Shageluk, Takeoff Minimums and Obstacle DP, Orig
Jacksonville, FL, Craig Muni, ILS OR LOC RWY 32, Amdt 4
Jacksonville, FL, Craig Muni, RNAV (GPS) RWY 14, Orig
Jacksonville, FL, Craig Muni, RNAV (GPS) RWY 32, Orig
Jacksonville, FL, Craig Muni, Takeoff Minimums and Obstacle DP, Amdt 3
Jacksonville, FL, Craig Muni, VOR RWY 14, Amdt 4
Jacksonville, FL, Craig Muni, VOR/DME RWY 32, Amdt 2

Miami, FL, Kendall-Tamiami Executive, ILS OR LOC RWY 9R, Amdt 10

Miami, FL, Kendall-Tamiami Executive, RNAV (GPS) RWY 9R, Amdt 1

Miami, FL, Kendall-Tamiami Executive, Takeoff Minimums and Obstacle DP, Amdt 7

Mattoon/Charleston, IL, Coles County Memorial, RNAV (GPS) RWY 29, Orig

Mount Vernon, IL, Mount Vernon, GPS RWY 5, Orig-A, CANCELLED

Mount Vernon, IL, Mount Vernon, GPS RWY 23, Orig, CANCELLED

Mount Vernon, IL, Mount Vernon, RNAV (GPS) RWY 5, Orig

Mount Vernon, IL, Mount Vernon, RNAV (GPS) RWY 23, Orig

Morehead, KY, Morehead-Rowan County Clyde A Thomas Rgnl, RNAV (GPS) RWY 2, Orig

Morehead, KY, Morehead-Rowan County Clyde A Thomas Rgnl, RNAV (GPS) RWY 20, Orig

Morehead, KY, Morehead-Rowan County Clyde A Thomas Rgnl, Takeoff Minimums and Obstacle DP, Orig

Mitchellville, MD, Freeway, VOR RWY 36, Orig-B, CANCELLED

Traverse City, MI, Cherry Capital, RNAV (GPS) RWY 10, Orig

Cape Girardeau, MO, Cape Girardeau Rgnl, ILS OR LOC RWY 10, Amdt 11

Cape Girardeau, MO, Cape Girardeau Rgnl, LOC/DME BC RWY 28, Amdt 7

Hattiesburg, MS, Hattiesburg Bobby L. Chain Muni, VOR RWY 13, Amdt 12

Jackson, MS, Hawkins Field, GPS RWY 16, Orig, CANCELLED

Jackson, MS, Hawkins Field, GPS RWY 34, Orig, CANCELLED

Jackson, MS, Hawkins Field, RNAV (GPS) RWY 16, Orig

Jackson, MS, Hawkins Field, RNAV (GPS) RWY 34, Orig

Carson City, NV, Carson, RNAV (GPS)-A, Orig

Carson City, NV, Carson, Takeoff Minimums and Obstacle DP, Orig

New York, NY, LaGuardia, Takeoff Minimums and Obstacle DP, Amdt 8

Newburgh, NY, Stewart Intl, Takeoff Minimums and Obstacle DP, Amdt 5

McMinnville, OR, McMinnville Muni, Takeoff Minimums and Obstacle DP, Amdt 4

McMinnville, OR, McMinnville Muni, VOR/DME-B, Amdt 6

Ontario, OR, Ontario Muni, Takeoff Minimums and Obstacle DP, Amdt 3

State College, PA, University Park, ILS OR LOC RWY 24, Amdt 9

State College, PA, University Park, RNAV (GPS) RWY 6, Amdt 1

State College, PA, University Park, RNAV (GPS) RWY 24, Orig

State College, PA, University Park, VOR-B, Amdt 10

Lebanon, TN, Lebanon Muni, GPS RWY 19, Orig, CANCELLED

Lebanon, TN, Lebanon Muni, NDB RWY 19, Amdt 1

Lebanon, TN, Lebanon Muni, RNAV (GPS) RWY 19, Orig

Ogden, UT, Ogden-Hinckley, VOR/DME RWY 7, Amdt 6

Richlands, VA, Tazewell County, LOC/DME RWY 25, Orig

Ellensburg, WA, Bowers Field, VOR-B, Amdt 3

Pasco, WA, Tri-Cities, VOR/DME RWY 30, Amdt 3

Correction: On September 11, 2008 (73 FR 52779), the FAA published an Amendment in Docket No. 30624, Amdt No. 3284 to Part 97 of the Federal Aviation Regulations under section 97.29. The 1st entry for *Pittsburgh, PA, Pittsburgh Intl*, effective September 25, 2008, is hereby corrected to read as follows: Pittsburgh, PA, Pittsburgh Intl, CONVERGING ILS RWY 28R, Amdt 4, CANCELLED

Rescinded: On August 7, 2008 (73 FR 45861), the FAA published an Amendment in Docket No. 30620, Amdt No. 3280 to Part 97 of the Federal Aviation Regulations under section 97.25. The following entry, effective September 25, 2008, is hereby rescinded in its entirety: Ketchikan, AK, Ketchikan Intl, ILS OR LOC/DME Y RWY 11, Amdt 7

[FR Doc. E8-23913 Filed 10-10-08; 8:45 am]

BILLING CODE 4910-13-P

COMMODITY FUTURES TRADING COMMISSION

17 CFR Part 30

Foreign Futures and Options Transactions

AGENCY: Commodity Futures Trading Commission.

ACTION: Order.

SUMMARY: The Commodity Futures Trading Commission (Commission or CFTC) is granting an exemption to firms designated by the Tokyo Financial Exchange, Inc. (TFX) from the application of certain of the Commission's foreign futures and option regulations based upon substituted compliance with certain comparable regulatory and self-regulatory requirements of a foreign regulatory authority consistent with conditions specified by the Commission, as set forth herein. This Order is issued pursuant to Commission Regulation 30.10, which permits persons to file a petition with the Commission for exemption from the application of certain of the Regulations set forth in Part 30 and authorizes the Commission to grant such an exemption if such action would not be otherwise contrary to the public interest or to the purposes of the provision from which exemption is sought.

DATES: *Effective Date:* October 14, 2008.

FOR FURTHER INFORMATION CONTACT:

Andrew V. Chapin, Associate Director; Helene Schroeder, Special Counsel; or Peter B. Sanchez, Special Counsel, Division of Clearing and Intermediary Oversight, Commodity Futures Trading

Commission, 1155 21st Street, NW., Washington, DC 20581. Telephone: (202) 418-5430. E-mail: DCIO@cftc.gov.

SUPPLEMENTARY INFORMATION: The Commission has issued the following Order:

Order Under CFTC Regulation 30.10 Exempting Firms Designated by the Tokyo Financial Exchange, Inc. (TFX) From the Application of Certain of the Foreign Futures and Option Regulations the Later of the Date of Publication of the Order Herein in the **Federal Register** or After Filing of Consents by Such Firms and TFX, as Appropriate, to the Terms and Conditions of the Order Herein.

Commission Regulations governing the offer and sale of commodity futures and option contracts traded on or subject to the regulations of a foreign board of trade to customers located in the U.S. are contained in Part 30 of the Commission's regulations.¹ These regulations include requirements for intermediaries with respect to registration, disclosure, capital adequacy, protection of customer funds, recordkeeping and reporting, and sales practice and compliance procedures that are generally comparable to those applicable to transactions on U.S. markets.

In formulating a regulatory program to govern the offer and sale of foreign futures and option products to customers located in the U.S., the Commission, among other things, considered the desirability of ameliorating the potential extraterritorial impact of such a program and avoiding duplicative regulation of firms engaged in international business. Based upon these considerations, the Commission determined to permit persons located outside the U.S. and subject to a comparable regulatory structure in the jurisdiction in which they were located to seek an exemption from certain of the requirements under Part 30 of the Commission's regulations based upon substituted compliance with the regulatory requirements of the foreign jurisdiction.

Appendix A to Part 30, "Interpretative Statement With Respect to the Commission's Exemptive Authority Under § 30.10 of Its Rules" (Appendix A), generally sets forth the elements the Commission will evaluate in determining whether a particular regulatory program may be found to be comparable for purposes of exemptive relief pursuant to Regulation 30.10.² These elements include: (1) Registration, authorization or other form

¹ Commission regulations referred to herein are found at 17 CFR Ch. I (2007).

² 52 FR 28990, 29001 (August 5, 1987).

of licensing, fitness review or qualification of persons that solicit and accept customer orders; (2) minimum financial requirements for those persons who accept customer funds; (3) protection of customer funds from misapplication; (4) recordkeeping and reporting requirements; (5) sales practice standards; (6) procedures to audit for compliance with, and to take action against those persons who violate, the requirements of the program; and (7) information sharing arrangements between the Commission and the appropriate governmental and/or self-regulatory organization to ensure Commission access on an "as needed" basis to information essential to maintaining standards of customer and market protection within the U.S.

Moreover, the Commission specifically stated in adopting Regulation 30.10 that no exemption of a general nature would be granted unless the persons to whom the exemption is to be applied: (1) Submit to jurisdiction in the U.S. by designating an agent for service of process in the U.S. with respect to transactions subject to Part 30 and filing a copy of the agency agreement with the National Futures Association (NFA); (2) agree to provide access to their books and records in the U.S. to Commission and Department of Justice representatives; and (3) notify NFA of the commencement of business in the U.S.³

On August 10, 2007, TFX petitioned the Commission on behalf of its member firms, located and doing business in Japan, for an exemption from the application of the Commission's Part 30 Regulations to those firms.⁴ In support of its petition, TFX states that granting such an exemption with respect to such firms that it has authorized to conduct foreign futures and option transactions on behalf of customers located in the U.S. would not be contrary to the public interest or to the purposes of the provisions from which the exemption is sought because such firms are subject to a regulatory framework comparable to that imposed by the Commodity Exchange Act (Act) and the regulations thereunder.

Based upon a review of the petition, supplementary materials filed by TFX and the recommendation of the Commission's staff, the Commission has concluded that the standards for relief set forth in Regulation 30.10 and, in

particular, Appendix A thereof, have been met and that compliance with applicable Japanese law and TFX regulations may be substituted for compliance with those sections of the Act and regulations thereunder more particularly set forth herein.

By this Order, the Commission hereby exempts, subject to specified conditions, those firms identified to the Commission by TFX as eligible for the relief granted herein from:

- Registration with the Commission for firms and for firm representatives;
- The requirement in Commission Regulation 30.6(a) and (d), 17 CFR § 30.6(a) and (d), that firms provide customers located in the U.S. with the risk disclosure statements in Commission Regulation 1.55(b), 17 CFR 1.55(b), and Commission Regulation 33.7, 17 CFR 33.7, or as otherwise approved under Commission Regulation 1.55(c), 17 CFR 1.55(c);
- The separate account requirement contained in Commission Regulation 30.7, 17 CFR 30.7;
- Those sections of Part 1 of the Commission's financial regulations that apply to foreign futures and options sold in the U.S. as set forth in Part 30; and
- Those sections of Part 1 of the Commission's regulations relating to books and records which apply to transactions subject to Part 30,

based upon substituted compliance by such persons with the applicable statutes and regulations in effect in Japan.

This determination to permit substituted compliance is based on, among other things, the Commission's finding that the regulatory framework governing persons in Japan who would be exempted hereunder provides:

(1) A system of qualification or authorization of firms who deal in transactions subject to regulation under Part 30 that includes, for example, criteria and procedures for granting, monitoring, suspending and revoking licenses, and provisions for requiring and obtaining access to information about authorized firms and persons who act on behalf of such firms;

(2) Financial requirements for firms including, without limitation, a requirement for a minimum level of working capital and daily mark-to-market settlement and/or accounting procedures;

(3) A system for the protection of customer assets that is designed to preclude the use of customer assets to satisfy house obligations and requires separate accounting for such assets;

(4) Recordkeeping and reporting requirements pertaining to financial and trade information;

(5) Sales practice standards for authorized firms and persons acting on their behalf that include, for example, required disclosures to prospective customers and prohibitions on improper trading advice;

(6) Procedures to audit for compliance with, and to redress violations of, the

customer protection and sales practice requirements referred to above, including, without limitation, an affirmative surveillance program designed to detect trading activities that take advantage of customers, and the existence of broad powers of investigation relating to sales practice abuses; and

(7) Mechanisms for sharing of information between the Commission, TFX, and the Japanese regulatory authorities on an "as needed" basis including, without limitation, confirmation data, data necessary to trace funds related to trading futures products subject to regulation in Japan, position data, and data on firms' standing to do business and financial condition.

Commission staff have concluded, upon review of the petition of TFX and accompanying exhibits, that Japan's regulation of financial futures and options exchanges is comparable to that of the U.S. in the areas specified in Appendix A of Part 30, as described above.

This Order does not provide an exemption from any provision of the Act or regulations thereunder not specified herein, such as the antifraud provision in Regulation 30.9. Moreover, the relief granted is limited to brokerage activities undertaken on behalf of customers located in the U.S. with respect to transactions on or subject to the regulations of TFX for products that customers located in the U.S. may trade.⁵ The relief does not extend to regulations relating to trading, directly or indirectly, on U.S. exchanges. For example, a firm trading in U.S. markets for its own account would be subject to the Commission's large trader reporting requirements.⁶ Similarly, if such a firm were carrying positions on a U.S. exchange on behalf of foreign clients and submitted such transactions for clearing on an omnibus basis through a firm registered as a futures commission merchant under the Act, it would be subject to the reporting requirements applicable to foreign brokers.⁷ The relief herein is inapplicable where the firm solicits or accepts orders from customers located in the U.S. for transactions on U.S. markets. In that case, the firm must comply with all applicable U.S. laws and regulations, including the requirement to register in the appropriate capacity.

The eligibility of any firm to seek relief under this exemptive Order is subject to the following conditions:

(1) The regulatory or self-regulatory organization responsible for monitoring the compliance of such firms with the regulatory requirements described in the

³ 52 FR 28980, 28981 and 29002.

⁴ The Commission previously reviewed petitions from two Japanese self-regulatory organizations—the Tokyo Grain Exchange (TGE) and the Tokyo Commodity Exchange (TOCOM). See 58 FR10953 (February 23, 1993) (TGE); 71 FR 6759 (February 9, 2006) (TOCOM).

⁵ See, e.g., Sections 2(a)(1)(C) and (D) of the Act.

⁶ See, e.g., 17 CFR Part 18 (2007).

⁷ See, e.g., 17 CFR Parts 17 and 21 (2007).

Regulation 30.10 petition must represent in writing to the CFTC⁸ that:

(a) Each firm for which relief is sought is registered, licensed or authorized, as appropriate, and is otherwise in good standing under the standards in place in Japan; such firm is engaged in business with customers in Japan as well as in the U.S.; and such firm and its principals and employees who engage in activities subject to Part 30 would not be statutorily disqualified from registration under Section 8a(2) of the Act, 7 U.S.C. 12a(2);

(b) It will monitor firms to which relief is granted for compliance with the regulatory requirements for which substituted compliance is accepted and will promptly notify the Commission or NFA of any change in status of a firm that would affect its continued eligibility for the exemption granted hereunder, including the termination of its activities in the U.S.;

(c) All transactions with respect to customers resident in the U.S. will be made on or subject to the regulations of TFX and the Commission will receive prompt notice of all material changes to the relevant laws in Japan, any regulations promulgated thereunder and TFX regulations;

(d) Customers located in the U.S. will be provided no less stringent regulatory protection than Japanese customers under all relevant provisions of Japanese law; and

(e) It will cooperate with the Commission with respect to any inquiries concerning any activity subject to regulation under the Part 30 Regulations, including sharing the information specified in Appendix A on an "as needed" basis and will use its best efforts to notify the Commission if it becomes aware of any information that in its judgment affects the financial or operational viability of a member firm doing business in the U.S. under the exemption granted by this Order.

(2) Each firm seeking relief hereunder must represent in writing that it:

(a) Is located outside the U.S., its territories and possessions and, where applicable, has subsidiaries or affiliates domiciled in the U.S. with a related business (e.g., banks and broker/dealer affiliates) along with a brief description of each subsidiary's or affiliate's identity and principal business in the U.S.;

(b) Consents to jurisdiction in the U.S. under the Act by filing a valid and binding appointment of an agent in the U.S. for service of process in accordance with the requirements set forth in Regulation 30.5;

(c) Agrees to provide access to its books and records related to transactions under Part 30 required to be maintained under the applicable statutes and regulations in effect in Japan upon the request of any representative of the Commission or U.S. Department of Justice at the place in the U.S. designated by such representative, within 72 hours, or such lesser period of time as specified by that representative as may be reasonable under the circumstances after notice of the request;

(d) Has no principal or employee who solicits or accepts orders from customers

located in the U.S. who would be disqualified under Section 8a(2) of the Act, 7 U.S.C. 12a(2), from doing business in the U.S.;

(e) Consents to participate in any NFA arbitration program that offers a procedure for resolving customer disputes on the papers where such disputes involve representations or activities with respect to transactions under Part 30, and consents to notify customers located in the U.S. of the availability of such a program;

(f) Undertakes to comply with the applicable provisions of Japanese laws and TFX regulations that form the basis upon which this exemption from certain provisions of the Act and Regulations thereunder is granted.

As set forth in the Commission's September 11, 1997 Order delegating to NFA certain responsibilities, the written representations set forth in paragraph (2) shall be filed with NFA.⁹ Each firm seeking relief hereunder has an ongoing obligation to notify NFA should there be a material change to any of the representations required in the firm's application for relief.

The Commission also confirms that TFX members that receive confirmation of relief set forth herein may engage in limited marketing conduct with respect to certain qualified customers located in the U.S. from a non-permanent location in the U.S., subject to the terms and conditions set forth in prior Commission Orders.¹⁰ The Commission notes that any firm and their employees or other representatives which engage in marketing conduct pursuant to this relief are deemed to have consented to the Commission's jurisdiction over such marketing activities by their filing of a valid and binding appointment of an agent in the U.S. for service of process.

This Order will become effective as to any designated TFX firm the later of the date of publication of the Order in the **Federal Register** or the filing of the consents set forth in paragraphs (2)(a)–(f). Upon filing of the notice required under paragraph (1)(b) as to any such firm, the relief granted by this Order may be suspended immediately as to that firm. That suspension will remain

⁹ 62 FR 47792, 47793 (September 11, 1997). Among other duties, the Commission authorized NFA to receive requests for confirmation of Regulation 30.10 relief on behalf of particular firms, to verify such firms' fitness and compliance with the conditions of the appropriate Regulation 30.10 Order and to grant exemptive relief from registration to qualifying firms.

¹⁰ See 57 FR 49644 (November 3, 1992) (permitted limited marketing of foreign futures and foreign option products to certain governmental and institutional customers located in the U.S.); 59 FR 42156 (August 17, 1994) (expanding the relief set forth in the 1992 release to conduct directed towards "accredited investors", as defined in the Securities and Exchange Commission's Regulation D issued pursuant to the Securities Act of 1933).

in effect pending further notice by the Commission, or the Commission's designee, to the firm and TFX.

This Order is issued pursuant to Regulation 30.10 based on the representations made and supporting material provided to the Commission and the recommendation of the staff, and is made effective as to any firm granted relief hereunder based upon the filings and representations of such firms required hereunder. Any material changes or omissions in the facts and circumstances pursuant to which this Order is granted might require the Commission to reconsider its finding that the standards for relief set forth in Regulation 30.10 and, in particular, Appendix A, have been met. Further, if experience demonstrates that the continued effectiveness of this Order in general, or with respect to a particular firm, would be contrary to public policy or the public interest, or that the systems in place for the exchange of information or other circumstances do not warrant continuation of the exemptive relief granted herein, the Commission may condition, modify, suspend, terminate, withhold as to a specific firm, or otherwise restrict the exemptive relief granted in this Order, as appropriate, on its own motion.

The Commission will continue to monitor the implementation of its program to exempt firms located in jurisdictions generally deemed to have a comparable regulatory program from the application of certain of the foreign futures and option regulations and will make necessary adjustments if appropriate.

Dated: October 8, 2008.

By the Commission.

David Stawick,

Secretary of the Commission.

[FR Doc. E8–24315 Filed 10–10–08; 8:45 am]

BILLING CODE 6351–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 801

[TD 9426]

RIN 1545–BE45

Balanced System for Measuring Organizational and Employee Performance Within the Internal Revenue Service

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Final regulations.

⁸ As described below, these representations are to be filed with NFA.

SUMMARY: This document contains final regulations relating to the modification of regulations governing the IRS Balanced System for Measuring Organizational and Employee Performance. These regulations affect internal operations of the IRS and the systems that the agency employs to evaluate the performance of organizations within the IRS and individuals employed by the IRS.

DATES: *Effective date.* These regulations are effective on October 14, 2008. *Applicability date.* For dates of applicability, see § 801.8.

FOR FURTHER INFORMATION CONTACT: Neil Worden, (202) 927-0900.

SUPPLEMENTARY INFORMATION:

Background

On October 17, 2005, the IRS published in the **Federal Register** proposed regulations (REG-114444-05) at 70 FR 60256 and final and temporary regulations (TD 9227) at 70 FR 60214 amending 26 CFR part 801. One written comment was received. No public hearing was requested. This document adopts, without modification, the proposed regulations as final regulations.

Summary of Comments

The commentator suggested that modification of the regulation was not needed. The commentator further suggested that the Quantity measure “number of cases closed” should never be used to evaluate IRS employees or suggest goals. The amendment of Part 801 retains the absolute prohibition on the use of quantity data to evaluate non-supervisory employees who exercise judgment with respect to tax enforcement results. The amendment allows communicating the quantity goals of an organizational unit with employees, including quantity expectations, such as the average number of case closures needed to meet the unit’s goal. These communications must recognize that the facts and circumstances of each case will affect an employee’s actual closures, and that the employee is not being given a quota which must be met. Accordingly, the commentator’s suggestion was not adopted.

In addition, the inclusion of some outcome-neutral production data as examples of quantity measures (for example, cycle time and number or percentage of overage cases) (§ 801.6(c)) does not preclude an organizational unit’s use of this or other outcome-neutral production data as quality measures.

Special Analyses

It has been determined that this Treasury decision is not a significant regulatory action as defined in Executive Order 12866. Therefore, a regulatory assessment is not required. It also has been determined that the section 553(b) of the Administrative Procedure Act (5 U.S.C. chapter 5) does not apply to these regulations, and because the regulation does not impose a collection of information on small entities, the Regulatory Flexibility Act (5 U.S.C. chapter 6) does not apply. Pursuant to section 7805(f) of the Internal Revenue Code, the notice of proposed rulemaking preceding these regulations was submitted to the Chief Counsel for Advocacy of the Small Business Administration for comment on its impact on small business.

Drafting Information

The principal author of these regulations is Karen F. Keller, Office of Associate Chief Counsel (General Legal Services). However, other personnel from the IRS participated in their development.

List of Subjects in 26 CFR part 801

Organization and functions (Government agencies), Federal employees.

Adoption of Amendments to the Regulations

■ Accordingly, 26 CFR Part 801 is amended as follows:

■ **Paragraph 1.** The authority citation for Part 801 continues to read in part as follows:

Authority: 5 U.S.C. 9501 * * *

PART 801—BALANCED SYSTEM FOR MEASURING ORGANIZATIONAL AND EMPLOYEE PERFORMANCE WITHIN THE INTERNAL REVENUE SERVICE

§§ 801.1 through 801.7 [Removed]

■ **Par. 2.** The center heading and §§ 801.1, 801.2, 801.3, 801.4, 801.5, 801.6, and 801.7 are removed.

§§ 801.1T through 801.8T [Redesignated as §§ 801.1 through 801.8]

■ **Par. 3.** The center heading preceding § 801.1T is removed.

■ **Par. 4.** Sections 801.1T, 801.2T, 801.3T, 801.4T, 801.5T, 801.6T, 801.7T, and 801.8T are redesignated as §§ 801.1, 801.2, 801.3, 801.4, 801.5, 801.6, 801.7, and 801.8 and the language “T” following the section number and “(temporary)” is removed from each section heading, respectively.

§ 801.1 [Amended]

■ **Par. 5.** Newly designated § 801.1(a) is amended by removing the language “(Pub. L. 105–106, 112 Stat. 685, 715–716, 722)” and adding the language “(Pub. L. 105–106, 112 Stat. 685, 715–716, 722)” in its place.

§ 801.2 [Amended]

■ **Par. 6.** Newly designated § 801.2 is amended by removing the language “Pub. L. 104–106, 110 Stat. 186, 679); the Government Performance and Results Act of 1993 (Pub. L. 103–62, 107 Stat. 285); and the Chief Financial Officers Act of 1990 (Pub. L. 101–576, 108 Stat. 2838)” and adding the language “(Pub. L. 104–106, 110 Stat. 186, 679); the Government Performance and Results Act of 1993 (Pub. L. 103–62, 107 Stat. 285); and the Chief Financial Officers Act of 1990 (Pub. L. 101–576, 108 Stat. 2838)” in its place.

§ 801.3 [Amended]

■ **Par. 7.** Newly designated § 801.3(e)(1) and (e)(3) is amended by removing the language “§ 801.6T” in each location and adding the language “801.6” in its place.

§ 801.7 [Amended]

■ **Par. 8.** Newly designated § 801.7(a) introductory text is amended by removing the language “§ 801.3T” and adding the language “§ 801.3” in its place.

■ **Par. 9.** New designated § 801.8 is revised to read as follows:

§ 801.8 Effective/applicability dates.

The provisions of §§ 801.1 through 801.7 apply on or after October 17, 2005.

Approved: October 7, 2008.

Linda E. Stiff,

Deputy Commissioner for Services and Enforcement.

Eric Solomon,

Assistant Secretary of the Treasury (Tax Policy).

[FR Doc. E8–24335 Filed 10–10–08; 8:45 am]

BILLING CODE 4830-01-P

DEPARTMENT OF HOMELAND SECURITY**Coast Guard****33 CFR Parts 100, 110, 117, 147 and/or 165****[USCG–2008–0181]****Quarterly Listings; Anchorages, Safety Zones, Security Zones, Special Local Regulations, Regulated Navigation Areas, and Drawbridge Operation Regulations****AGENCY:** Coast Guard, DHS.**ACTION:** Notice of expired temporary rules issued.

SUMMARY: This document provides required notice of substantive rules issued by Coast Guard field units and temporarily effective between April 2007 and June 2008, that were not published in the **Federal Register**. This quarterly notice lists temporary special local regulations, temporary drawbridge operation regulations, regulated navigation areas, security zones, and safety zones, all of limited duration and for which timely publication in the **Federal Register** was not possible.

DATES: This document lists temporary Coast Guard rules that became effective and were terminated between 30 April 2007 and 30 June 2008.

ADDRESSES: Documents indicated in this preamble as being available in the docket are available for viewing in their own dockets online at www.regulations.gov by searching on their docket number. They are also available for inspection or copying at the Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m.

and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For questions on this notice contact Ms. Lesley Mose, Office of Regulations and Administrative Law, telephone (202) 362–3863. For questions on viewing, or on submitting material to the docket, contact Ms. Angie Ames, Program Manager, Docket Operations, telephone 202–366–5115.

SUPPLEMENTARY INFORMATION: Coast Guard District Commanders and Captains of the Port (COTP) must be immediately responsive to the safety and security needs within their jurisdiction; therefore, District Commanders and COTPs have been delegated the authority to issue certain local regulations. *Safety zones* may be established for safety or environmental purposes. A safety zone may be stationary and described by fixed limits or it may be described as a zone around a vessel in motion. *Security zones* limit access to prevent injury or damage to vessels, ports, or waterfront facilities and may also describe a zone around a vessel in motion. *Special local regulations* are issued to enhance the safety of participants and spectators at regattas and other marine events. *Drawbridge operation regulations* authorize changes to drawbridge schedules to accommodate bridge repairs, seasonal vessel traffic, and local public events. *Regulated Navigation Areas* are water areas within a defined boundary for which regulations for vessels navigating within the area have been established by the regional Coast Guard District Commander. Timely publication of these rules in the **Federal Register** is often precluded when a rule responds to an emergency, or when an event occurs without sufficient advance notice. The affected public is, however, informed of these rules through Local

Notices to Mariners, press releases, and other means. Moreover, actual notification is provided by Coast Guard patrol vessels enforcing the restrictions imposed by the rule. Because **Federal Register** publication was not possible before the beginning of the effective period, mariners were personally notified of the contents of these special local regulations, drawbridge operation regulations, security zones, regulated navigation area regulations, or safety zones by local Coast Guard officials' on-scene prior to any enforcement action. However, the Coast Guard, by law, must publish in the **Federal Register** notice of substantive rules adopted. To meet this obligation without imposing undue expense on the public, the Coast Guard periodically publishes a list of these temporary special local regulations, security zones, safety zones, regulated navigation areas, and drawbridge operation regulations. Permanent rules are not included in this list because they are published in their entirety in the **Federal Register**. Temporary rules are also published in their entirety if sufficient time is available to do so before they are placed in effect or terminated. The safety zones, special local regulations, security zones, regulated navigation areas, and drawbridge operation regulations listed in this notice have been exempted from review under Executive Order 12866, Regulatory Planning and Review, because of their emergency nature, or limited scope and temporary effectiveness.

The following rules were placed in effect temporarily during the period from 30 April 2007, through 30 June 2008, unless otherwise indicated.

Dated: October 3, 2008.

S. G. Venckus,
Chief, Office of Regulations and Administrative Law.

Docket No.	Location	Type	Effective date
USCG–2007–0083	James River, VA	Security zones (Part 165)	11/19/2007
USCG–2007–0086	Savannah, GA	Security zones (Part 165)	11/19/2007
USCG–2007–0088	Savannah, GA	Security zones (Part 165)	11/21/2007
USCG–2007–0152	Savannah, GA	Security zones (Part 165)	12/9/2007
USCG–2007–0162	Charlotte Amalie, USVI	Safety Zones (Parts 147 and 165)	12/31/2007
USCG–2007–0172	Dubuque, IA	Drawbridges (Part 117)	12/18/2007
USCG–2007–0174	St. Thomas, USVI	Safety Zones (Parts 147 and 165)	12/27/2007
USCG–2008–0004	New London, CT	Safety Zones (Parts 147 and 165)	1/15/2008
USCG–2008–0016	Savannah, GA	Security zones (Part 165)	1/9/2008
USCG–2008–0023	Boston, MA	Safety Zones (Parts 147 and 165)	1/25/2008
USCG–2008–0024	Old Tampa Bay, FL	Safety Zones (Parts 147 and 165)	1/12/2008
USCG–2008–0033	Savannah, GA	Security zones (Part 165)	1/10/2008
USCG–2008–0058	Fort Lauderdale, FL	Safety Zones (Parts 147 and 165)	5/3/2008
USCG–2008–0089	Tampa Bay, FL	Safety Zones (Parts 147 and 165)	3/9/2008
USCG–2008–0095	Tampa Bay, FL	Safety Zones (Parts 147 and 165)	4/7/2008
USCG–2008–0102	San Francisco, CA	Safety Zones (Parts 147 and 165)	5/9/2008
USCG–2008–0139	Portland, OR	Safety Zones (Parts 147 and 165)	4/2/2008
USCG–2008–0144	Portland, OR	Safety Zones (Parts 147 and 165)	5/5/2008
USCG–2008–0159	Hampton, VA	Safety Zones (Parts 147 and 165)	6/20/2008

Docket No.	Location	Type	Effective date
USCG-2008-0162	San Diego Bay, CA	Safety Zones (Parts 147 and 165)	5/1/2008
USCG-2008-0194	San Francisco Bay, CA	Safety Zones (Parts 147 and 165)	4/16/2008
USCG-2008-0195	San Francisco Bay, CA	Safety Zones (Parts 147 and 165)	4/21/2008
USCG-2008-0227	Washington, DC	Security zones (Part 165)	3/30/2008
USCG-2008-0232	Johns Pass, FL	Safety Zones (Parts 147 and 165)	3/26/2008
USCG-2008-0233	Charlotte Amalie, USVI	Safety Zones (Parts 147 and 165)	4/26/2008
USCG-2008-0236	Johns Pass, FL	Safety Zones (Parts 147 and 165)	3/31/2008
USCG-2008-0237	Gulf of Mexico, FL	Safety Zones (Parts 147 and 165)	5/3/2008
USCG-2008-0247	Boston, MA	Safety Zones (Parts 147 and 165)	4/14/2008
USCG-2008-0248	Miami, FL	Safety Zones (Parts 147 and 165)	3/31/2008
USCG-2008-0257	Miami, FL	Safety Zones (Parts 147 and 165)	4/2/2008
USCG-2008-0259	Savannah, GA	Safety Zones (Parts 147 and 165)	4/2/2008
USCG-2008-0260	San Francisco Bay, CA	Safety Zones (Parts 147 and 165)	4/8/2008
USCG-2008-0261	San Francisco, CA	Safety Zones (Parts 147 and 165)	5/8/2008
USCG-2008-0262	San Francisco, CA	Security zones (Part 165)	4/9/2008
USCG-2008-0266	Jacksonville, NC	Security zones (Part 165)	4/11/2008
USCG-2008-0273	Lake Havasu, AZ	Safety Zones (Parts 147 and 165)	4/26/2008
USCG-2008-0276	Charlotte Amalie, USVI	Safety Zones (Parts 147 and 165)	4/20/2008
USCG-2008-0280	Johns Pass, FL	Safety Zones (Parts 147 and 165)	4/7/2008
USCG-2008-0281	Alameda, CA	Safety Zones (Parts 147 and 165)	4/17/2008
USCG-2008-0285	Lake Washington, WA	Safety Zones (Parts 147 and 165)	4/17/2008
USCG-2008-0286	Seattle, WA	Special Local Regulations (Part 100)	5/3/2008
USCG-2008-0287	Portland, OR	Security zones (Part 165)	4/10/2008
USCG-2008-0289	Savannah, GA	Security zones (Part 165)	4/9/2008
USCG-2008-0297	Savannah, GA	Security zones (Part 165)	4/9/2008
USCG-2008-0298	San Diego, CA	Security zones (Part 165)	5/3/2008
USCG-2008-0300	Chicago, IL	Safety Zones (Parts 147 and 165)	4/15/2008
USCG-2008-0303	Belleair Bridge, FL	Safety Zones (Parts 147 and 165)	4/21/2008
USCG-2008-0304	Lake Havasu City, AZ	Safety Zones (Parts 147 and 165)	4/26/2008
USCG-2008-0309	New Bern, NC	Safety Zones (Parts 147 and 165)	5/30/2008
USCG-2008-0317	Sacramento, CA	Drawbridges (Part 117)	4/27/2008
USCG-2008-0324	Stockton, CA	Safety Zones (Parts 147 and 165)	4/25/2008
USCG-2008-0325	Miami, FL	Safety Zones (Parts 147 and 165)	4/20/2008
USCG-2008-0330	Savannah, GA	Security zones (Part 165)	4/22/2008
USCG-2008-0336	Fort Lauderdale, FL	Safety Zones (Parts 147 and 165)	5/5/2008
USCG-2008-0342	Portland, OR	Security zones (Part 165)	4/25/2008
USCG-2008-0346	Nassau County, NY	Drawbridges (Part 117)	5/10/2008
USCG-2008-0352	Savannah, GA	Security zones (Part 165)	4/25/2008
USCG-2008-0353	Savannah, GA	Security zones (Part 165)	4/27/2008
USCG-2008-0357	Portland, OR	Safety Zones (Parts 147 and 165)	5/2/2008
USCG-2008-0358	Baldwinsville, NY	Safety Zones (Parts 147 and 165)	5/17/2008
USCG-2008-0359	Duluth, MN	Safety Zones (Parts 147 and 165)	5/13/2008
USCG-2008-0361	Savannah, GA	Security zones (Part 165)	4/29/2008
USCG-2008-0362	Portland, OR	Security zones (Part 165)	5/3/2008
USCG-2008-0364	Ft Myers Beach, FL	Safety Zones (Parts 147 and 165)	5/14/2008
USCG-2008-0370	Savannah, GA	Safety Zones (Parts 147 and 165)	5/5/2008
USCG-2008-0371	Jones Beach, NY	Safety Zones (Parts 147 and 165)	5/22/2008
USCG-2008-0376	Richland, WA	Special Local Regulations (Part 100)	5/17/2008
USCG-2008-0382	Savannah, GA	Security zones (Part 165)	5/5/2008
USCG-2008-0387	Savannah, GA	Safety Zones (Parts 147 and 165)	5/5/2008
USCG-2008-0393	PG County, MD	Security zones (Part 165)	5/15/2008
USCG-2008-0409	Boston, MA	Safety Zones (Parts 147 and 165)	5/19/2008
USCG-2008-0410	Seattle, WA	Security zones (Part 165)	5/20/2008
USCG-2008-0415	New London, CT	Security zones (Part 165)	5/21/2008
USCG-2008-0417	Seattle, WA	Security zones (Part 165)	5/20/2008
USCG-2008-0418	Seattle, WA	Security zones (Part 165)	5/20/2008
USCG-2008-0430	San Francisco, CA	Safety Zones (Parts 147 and 165)	5/30/2008
USCG-2008-0435	Portland, OR	Security zones (Part 165)	5/20/2008
USCG-2008-0468	Wilmington, NC	Regulated Navigation Areas (Part 165)	5/27/2008
USCG-2008-0481	Green Bay, WI	Safety Zones (Parts 147 and 165)	6/14/2008
USCG-2008-0484	Portland, OR	Security zones (Part 165)	6/6/2008
USCG-2008-0488	Salisbury, MA	Safety Zones (Parts 147 and 165)	6/28/2008
USCG-2008-0489	Rochester, NY	Safety Zones (Parts 147 and 165)	6/21/2008
USCG-2008-0522	Santa Cruz, CA	Safety Zones (Parts 147 and 165)	6/14/2008
USCG-2008-0531	Syracuse, NY	Safety Zones (Parts 147 and 165)	6/28/2008
USCG-2008-0585	Bay City, MI	Regulated Navigation Areas (Part 100)	6/20/2008

FEDERAL COMMUNICATIONS COMMISSION**47 CFR Part 73**

[FCC 08–222; MM Docket No. 01–33; RM–10060]

Radio Broadcasting Services; Caro and Cass City, MI**AGENCY:** Federal Communications Commission.**ACTION:** Final rule; denial of application for review.

SUMMARY: The Commission denied an application for review filed by Edward Czelada of a *Report and Order* in this proceeding. The *Report and Order* upgraded the class of Station WIDL from Channel 221A to 221C3, reallocated Channel 221C3 from Caro to Cass City, Michigan, and denied Czelada's counterproposal to allot Channel 218C3 at Ubly, Michigan and Channel 297C3 at Cass City, Michigan. The Commission determined that the counterproposal was defective because it requested a channel allotment in the noncommercial educational reserved band, which is prohibited under the Commission's rules. See **SUPPLEMENTARY INFORMATION**.

FOR FURTHER INFORMATION CONTACT:

Victoria M. McCauley, Media Bureau, (202) 418–2180.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's *Memorandum Opinion and Order*, MM Docket No. 01–33, adopted September 24, 2008, and released September 26, 2008. The Commission denied an application for review filed by Edward Czelada of a *Report and Order* in this proceeding. See 66 FR 29237 (May 30, 2001). The Commission also denied review of Czelada's argument that the staff failed to consider the preclusionary effect of the Channel 221 upgrade at Cass City on existing and potential NCE FM service as untimely raised. But even if it were to consider the argument, it was without merit. The preclusionary effect analysis occurs only when the 60 dBu contour of the Channel 221 upgrade proposal overlaps the Grade B contour of a television channel 6 station. No such overlap would occur in this case. The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Reference Information Center (Room CY–A257), 445 12th Street, SW., Washington, DC 20554. The complete text of this decision may also be purchased from the Commission's copy contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554,

telephone 1–800–378–3160 or www.BCPIWEB.com.

This document is not subject to the Congressional Review Act. (The Commission, is, therefore, not required to submit a copy of this Memorandum Opinion and Order to GAO, pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A) because the application for review was denied.)

Federal Communications Commission.

Marlene H. Dortch,
Secretary.

[FR Doc. E8–24323 Filed 10–10–08; 8:45 am]

BILLING CODE 6712–01–P**FEDERAL COMMUNICATIONS COMMISSION****47 CFR Part 90**

[WT Docket No. 06–142; FCC 08–186]

Amendment of Section 90.20(e)(6) of the Commission's Rules**AGENCY:** Federal Communications Commission.**ACTION:** Final rule.

SUMMARY: This document addresses proposed revisions to the Commission's rules and policies regarding stolen vehicle recovery systems (SVRS) and the use of frequency 173.075 MHz. The Commission takes these actions in response to a petition for rulemaking filed by LoJack Corporation (LoJack), in which LoJack sought to modify the Commission's rules to accommodate its future narrowband operations on frequency 173.075 MHz, to improve the recovery services its products provide, and to permit other services in addition to SVRS. The *Report and Order* furthers the public interest by promoting flexibility and allowing SVRS licensees to operate with some relaxed restrictions while ensuring the continued interference protection of incumbent users.

DATES: Effective November 13, 2008.**FOR FURTHER INFORMATION CONTACT:**

Thomas Eng, Policy Division, Public Safety and Homeland Bureau, Federal Communications Commission, Washington, DC 20554, at (202) 418–0019, TTY (202) 418–7233, via e-mail at Thomas.Eng@fcc.gov, or via U.S. Mail at Federal Communications Commission, Wireless Telecommunications Bureau, 445 12th Street, SW., Washington, DC 20554.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Report and Order* in WT Docket No. 06–142, adopted on August 12, 2008 and released on August 13, 2008. The

complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Portals II, 445 12th Street, SW., Room CY–A257, Washington, DC 20554. This document may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., in person at 445 12th Street, SW., Room CY–B402, Washington, DC 20554, via telephone at (202) 488–5300, via facsimile at (202) 488–5563, or via e-mail at FCC@BCPIWEB.com. Alternative formats (computer diskette, large print, audio cassette, and Braille) are available to persons with disabilities or by sending an e-mail to FCC504@fcc.gov or calling the Consumer and Governmental Affairs Bureau at (202) 418–0530, TTY (202) 418–0432. This document is also available on the Commission's Web site at <http://www.fcc.gov>.

1. The major decisions in the *Report and Order* are as follows:

- Increases the effective radiated power (ERP) limit for narrowband (12.5 kHz bandwidth or less) base stations from 300 watts to 500 watts.
- Increases the power output limit for narrowband (12.5 kHz bandwidth or less) mobile transceivers from 2.5 watts to five watts.
- Modifies the duty cycle for base stations from one second every minute to five seconds every minute.
- Increases the tracking duty cycle for mobile transceivers from 200 milliseconds every ten seconds to 400 milliseconds every ten seconds and, correspondingly, increases the tracking duty cycle for mobile transceivers that are being tracked actively from 200 milliseconds every second to 400 milliseconds every second.
- Increases the uplink duty cycle for mobile transceivers from 1800 milliseconds every 300 seconds to 7200 milliseconds every 300 seconds.
- Retains the requirement for TV Channel 7 interference studies and requires that the studies be served upon affected TV Channel 7 stations.
- Permits the licensing of mobile transceivers by rule.
- Expands the scope of § 90.20(e)(6) to permit the tracking and recovery of lost and stolen cargo and hazardous materials, missing or wanted persons, and individuals at risk or of interest to law enforcement when established boundaries are violated. Also permits mobile transceivers to transmit automatic collision notifications, vehicle fire notifications, and carjacking alerts.
- Relaxes the limitation on emissions to permit flexibility in modulation as well as analog and digital signals.

Procedural Matters

A. Final Regulatory Flexibility Act Analysis

2. As required by section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. 604, the Commission has prepared a Final Regulatory Flexibility Analysis of the possible impact of the rule changes contained in this *Report and Order* on small entities. The Final Regulatory Flexibility Act analysis is set forth in Appendix C of the Report and Order. The Commission's Consumer Information Bureau, Reference Information Center, will send a copy of this *Report and Order*, including the Final Regulatory Flexibility Act Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

B. Final Paperwork Reduction Act of 1995 Analysis

3. This document contains a modified information collection requirement subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507 of the PRA. Prior to submission to OMB, the Commission will publish a notice in the **Federal Register** seeking public comment on the modified information collection requirement. In addition, that notice will also seek comment on how the Commission might "further reduce the information collection burden for small business concerns with fewer than 25 employees" pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4). The modified information collection contained in this order will not go into effect until OMB approves the collection. The Commission will publish a notice in the **Federal Register** announcing the effective date of the modified information collection.

C. Congressional Review Act Analysis

4. The Commission will send a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

Ordering Clauses

5. Accordingly, pursuant to sections 1, 2, 4(i), 301, 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 301, 302, 303, and §§ 1.421 and 1.425 of the Commission's rules, 47 CFR 1.421, 1.425, *it is ordered* that the *Report and Order* is hereby *adopted*.

6. *It is further ordered* that Part 90 of the Commission's Rules IS *amended* as set forth in Appendix B of the *Report and Order*, and that these Rules shall be effective November 13, 2008.

7. *It is further ordered* that the Commission's Consumer Information Bureau, Reference Information Center, *shall send* a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the U.S. Small Business Administration.

List of Subjects in 47 CFR Part 90

Common carriers; communications equipment; radio.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

Rule Changes

■ For reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR Part 90 as follows:

PART 90—PRIVATE LAND MOBILE RADIO SERVICES

■ 1. The authority citation for Part 90 continues to read as follows:

Authority: Sections 4(i), 11, 303(g), 303(r) and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r) and 332(c)(7).

■ 2. Section 90.20 is amended by revising paragraph (e)(6) to read as follows:

§ 90.20 Public Safety Pool.

* * * * *

(e) * * *

(6) The frequency 173.075 MHz is available for stolen vehicle recovery systems on a shared basis with Federal stations in the fixed and mobile services.

(i) Stolen vehicle recovery systems are limited to tracking and recovering vehicles, cargo, and hazardous materials that have been reported stolen or missing; missing or wanted persons; and individuals at risk, or individuals of interest to law enforcement, only when established boundaries are violated. Stolen vehicle recovery systems are not authorized for general purpose tracking or monitoring. Mobile units may also transmit automatic collision notifications, vehicle fire notifications, and carjacking alerts.

(ii) Any type of emission may be used within a maximum authorized bandwidth of 12.5 kHz, except that stations that operate as part of a stolen vehicle recovery system that was authorized and in operation prior to

May 27, 2005 may operate with a maximum authorized bandwidth of 20 kHz until May 27, 2019. For a complete listing of emission symbols allowable under this part, see § 2.201 of this chapter.

(iii) Mobile transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 12.5 kHz are limited to 5.0 watts power output. Mobile transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 20 kHz are limited to 2.5 watts power output.

(iv) Base station transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 12.5 kHz are limited to 300 watts ERP before February 18, 2009, and 500 watts ERP thereafter. Base station transmitters operating on this frequency with emissions authorized in a maximum bandwidth of 20 kHz are limited to 300 watts ERP.

(v) Transmissions from mobiles shall be limited to 400 milliseconds for every 10 seconds, except when a vehicle is being tracked actively transmissions are limited to 400 milliseconds for every second. Alternatively, transmissions from mobiles shall be limited to 7200 milliseconds for every 300 seconds with a maximum of six such messages in any 30 minute period.

(vi) Transmissions from base stations shall be limited to a total rate of five seconds every minute.

(vii) Any entity eligible to hold authorizations in the Public Safety Pool in accordance with §§ 90.20(a) and 90.111 of this chapter is authorized by this rule to operate mobile transmitters on this frequency. No license will be issued for mobile transmitters.

(viii) Applications for base stations operating on this frequency shall require coordination with the Federal Government. Applicants shall perform an analysis for each base station that is located within 169 km (105 miles) of a TV Channel 7 transmitter of potential interference to TV Channel 7 viewers. Applicants shall serve a copy of the analysis to the licensee of the affected TV Channel 7 transmitter upon filing the application with the Commission. Such base stations will be authorized if the applicant has limited the interference contour to include fewer than 100 residences or if the applicant:

(A) Shows that the proposed site is the only suitable location (which, at the application stage, requires a showing that the proposed site is especially well-suited to provide the proposed service);

(B) Develops a plan to control any interference caused to TV reception from operations; and

(C) Agrees to make such adjustments in the TV receivers affected as may be necessary to eliminate interference caused by its operations.

(ix) The licensee must eliminate any interference caused by its operation to TV Channel 7 reception within 30 days after notification in writing by the Commission. If this interference is not removed within this 30-day period, operation of the base station must be discontinued. The licensee is expected to help resolve all complaints of interference.

[FR Doc. E8-24309 Filed 10-10-08; 8:45 am]

BILLING CODE 6712-01-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 541

[Docket No. NHTSA-2008-0112]

Final Theft Data; Motor Vehicle Theft Prevention Standard

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Publication of final theft data.

SUMMARY: This document publishes the final data on thefts of model year (MY) 2006 passenger motor vehicles that occurred in calendar year (CY) 2006. The final 2006 theft data indicated an increase in the vehicle theft rate experienced in CY/MY 2006. The final theft rate for MY 2006 passenger vehicles stolen in calendar year 2006 is 2.08 thefts per thousand vehicles. Publication of these data fulfills NHTSA's statutory obligation to periodically obtain accurate and timely theft data and publish the information for review and comment.

FOR FURTHER INFORMATION CONTACT: Ms. Deborah Mazyck, Office of International

Policy, Fuel Economy and Consumer Programs, NHTSA, 1200 New Jersey Avenue, SE., Washington, DC 20590. Ms. Mazyck's telephone number is (202) 366-0846. Her fax number is (202) 493-2990.

SUPPLEMENTARY INFORMATION: NHTSA administers a program for reducing motor vehicle theft. The central feature of this program is the Federal Motor Vehicle Theft Prevention Standard, 49 CFR Part 541. The standard specifies performance requirements for inscribing and affixing vehicle identification numbers (VINs) onto certain major original equipment and replacement parts of high-theft lines of passenger motor vehicles.

The agency is required by 49 U.S.C. 33104(b)(4) to periodically obtain, from the most reliable source, accurate and timely theft data and publish the data for review and comment. To fulfill this statutory mandate, NHTSA has published theft data annually beginning with MYs 1983/84. Continuing to fulfill the § 33104(b)(4) mandate, this document reports the final theft data for CY 2006, the most recent calendar year for which data are available.

In calculating the 2006 theft rates, NHTSA followed the same procedures it used in calculating the MY 2005 theft rates. (For 2005 theft data calculations, see 73 FR 13150, March 12, 2008). As in all previous reports, NHTSA's data were based on information provided to NHTSA by the National Crime Information Center (NCIC) of the Federal Bureau of Investigation. The NCIC is a government system that receives vehicle theft information from nearly 23,000 criminal justice agencies and other law enforcement authorities throughout the United States. The NCIC data also include reported thefts of self-insured and uninsured vehicles, not all of which are reported to other data sources.

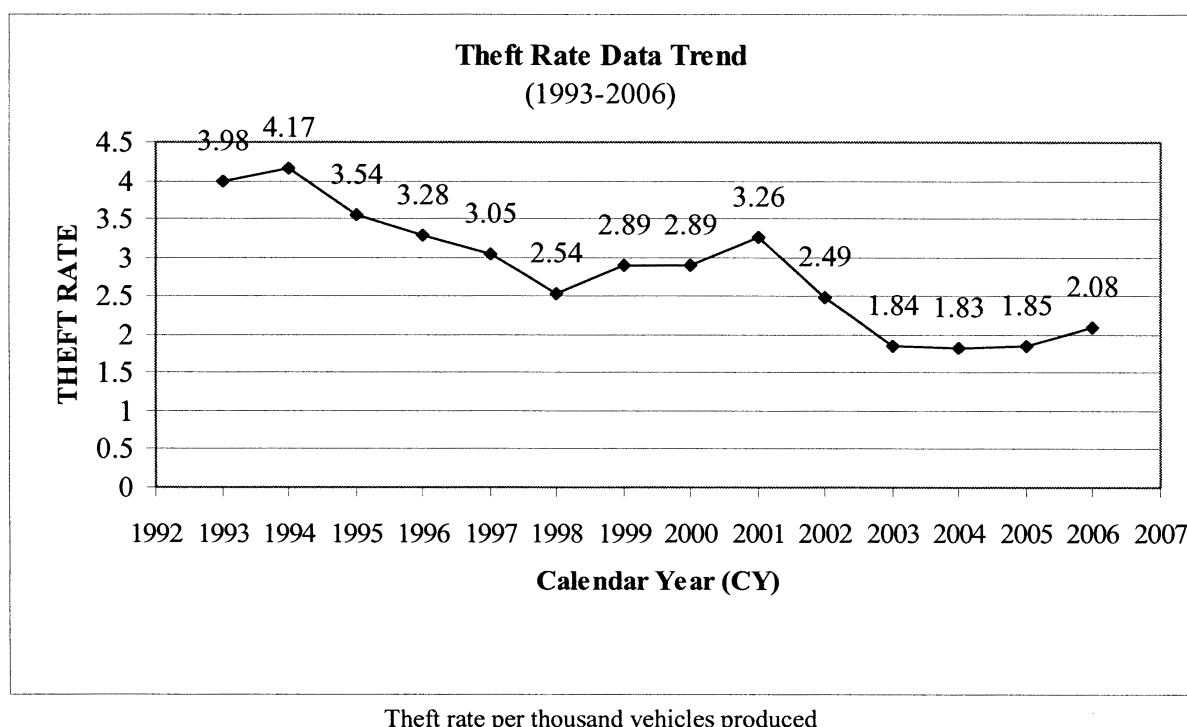
The 2006 theft rate for each vehicle line was calculated by dividing the

number of reported thefts of MY 2006 vehicles of that line stolen during calendar year 2006 by the total number of vehicles in that line manufactured for MY 2006, as reported to the Environmental Protection Agency (EPA).

The final 2006 theft data show an increase in the vehicle theft rate when compared to the theft rate experienced in CY/MY 2005. The final theft rate for MY 2006 passenger vehicles stolen in calendar year 2006 increased to 2.08 thefts per thousand vehicles produced, an increase of 12.4 percent from the rate of 1.85 thefts per thousand vehicles experienced by MY 2005 vehicles in CY 2005. NHTSA is not overly concerned about this increase in the overall theft rate. The data has shown an overall decreasing trend in theft rates since CY 1993, with periods of increase from one year to the next. As explained in the publication of preliminary theft data, if the final data, for calendar year/model year (CY/MY) 2006 showed a second year of increase, the agency would explore what could be the possible causes for these elevations. The agency also welcomed comments on the cause for this increase but no comments were received. Therefore, as indicated by the publication of preliminary theft rate data, the agency will continue to monitor this theft rate pattern and explore the possible reasons for the elevation in theft rates experienced during MY/CY 2005-2006.

For MY 2006 vehicles, out of a total of 223 vehicle lines, 19 lines had a theft rate higher than 3.5826 per thousand vehicles, the established median theft rate for MYs 1990/1991. (See 59 FR 12400, March 16, 1994). Of the 19 vehicle lines with a theft rate higher than 3.5826, 18 are passenger car lines, one is a multipurpose passenger vehicle lines, and none are light-duty truck lines.

Figure 1: Theft Rate Data Trend (1993-2006)



On Monday, July 14, 2008, NHTSA published the preliminary theft rates for CY 2006 passenger motor vehicles in the **Federal Register** (73 FR 40278). The agency tentatively ranked each of the MY 2006 vehicle lines in descending order of theft rate. The public was requested to comment on the accuracy of the data and to provide final production figures for individual vehicle lines. The agency used written comments to make the necessary adjustments to its data. As a result of the adjustments, some of the final theft rates and rankings of vehicle lines changed from those published in the July 2008 notice.

The agency received a written comment from Volkswagen Group of America, Inc. (VW). In its comments, VW informed the agency that the listing did not include the Volkswagen Touareg vehicle line. In response to this comment, the agency notes the Touareg vehicle line has a gross vehicle weight rating (GVWR) over 6,000 pounds, therefore, since the scope of the Federal

Motor Vehicle Theft Prevention Standard only includes vehicles with a GVWR of 6,000 pounds or less, the Volkswagen Touareg will not be included on the listing. VW also informed the agency that the entries for the Volkswagen Bentley Arnage and the Volkswagen Bentley Continental were listed with incorrect manufacturer designations. The final theft data has been revised to reflect that Bentley Motors is the manufacturer for the Arnage and the Continental vehicles. Additionally, VW noted errors in the ranking order of some of the vehicle lines having 0.0000 theft rates. As a result of this error, the final theft data has been revised to correct the ranking order of those vehicle lines having a 0.0000 theft rate. VW also informed the agency that the production volume listed for the Audi TT vehicle line was incorrect. After further review of the final production volumes VW reported to the EPA, the production volume for the Audi TT has been corrected and the final theft list has been revised

accordingly. As a result of the correction, the Audi TT previously ranked No. 203 with a theft rate of 0.0000 is now ranked No. 204 with a theft rate of 0.0000.

Further reanalysis of the theft rate data revealed that the Jaguar Vanden Plas/Super V8 entry was inadvertently listed as two entries with different production volumes. The entry for Jaguar Vanden Plas/Super V8 has been corrected to list the as one entry and the production volumes have been combined. As a result of this correction, the final theft data has been revised accordingly.

The following list represents NHTSA's final calculation of theft rates for all 2006 passenger motor vehicle lines. This list is intended to inform the public of calendar year 2006 motor vehicle thefts of model year 2006 vehicles and does not have any effect on the obligations of regulated parties under 49 U.S.C. Chapter 331, Theft Prevention.

FINAL REPORT OF THEFT RATES FOR MODEL YEAR 2006 PASSENGER MOTOR VEHICLES STOLEN IN CALENDAR YEAR 2006

Manufacturer	Make/model (line)	Thefts 2006	Production (Mfr's) 2006	2006 Theft rate (per 1,000 vehicles produced)
1. DAIMLERCHRYSLER	DODGE MAGNUM	407	46501	8.7525

FINAL REPORT OF THEFT RATES FOR MODEL YEAR 2006 PASSENGER MOTOR VEHICLES STOLEN IN CALENDAR YEAR
2006—Continued

Manufacturer	Make/model (line)	Thefts 2006	Production (Mfr's) 2006	2006 Theft rate (per 1,000 ve- hicles pro- duced)
2. DAIMLERCHRYSLER	DODGE CHARGER	963	130892	7.3572
3. DAIMLERCHRYSLER	DODGE STRATUS	569	79998	7.1127
4. GENERAL MOTORS	PONTIAC GRAND PRIX	802	116458	6.8866
5. LAMBORGHINI	MURCIELAGO	1	159	6.2893
6. GENERAL MOTORS	CHEVROLET MONTE CARLO	239	38136	6.2670
7. ROLLS ROYCE	PHANTOM	2	339	5.8997
8. DAIMLERCHRYSLER	CHRYSLER SEBRING	250	43115	5.7984
9. DAIMLERCHRYSLER	CHRYSLER SEBRING CONVERTIBLE	150	27685	5.4181
10. HONDA	ACURA RSX	69	15111	4.5662
11. DAIMLERCHRYSLER	CHRYSLER 300	991	217754	4.5510
12. GENERAL MOTORS	PONTIAC G6	716	170394	4.2020
13. MITSUBISHI	GALANT	118	28101	4.1991
14. GENERAL MOTORS	CHEVROLET MALIBU	740	177262	4.1746
15. SUZUKI	FORENZA	175	42550	4.1128
16. FORD MOTOR CO	FORD TAURUS	638	156882	4.0668
17. GENERAL MOTORS	CHEVROLET IMPALA	1044	262823	3.9723
18. GENERAL MOTORS	CHEVROLET COBALT	844	229576	3.6763
19. NISSAN	SENTRA	500	136351	3.6670
20. KIA	AMANTI	29	8133	3.5657
21. HYUNDAI	SONATA	605	170783	3.5425
22. MERCEDES-BENZ	215 (CL-CLASS)	79	22411	3.5251
23. MITSUBISHI	ENDEAVOR	51	14546	3.5061
24. SUZUKI	VERONA	7	2000	3.5000
25. HONDA	HONDA CIVIC	362	103981	3.4814
26. DAIMLERCHRYSLER	CHRYSLER PT CRUISER	457	131960	3.4632
27. DAIMLERCHRYSLER	JEEP GRAND CHEROKEE	303	88383	3.4283
28. BMW	M3	15	4394	3.4137
29. FORD MOTOR CO	LINCOLN LS	29	8499	3.4122
30. NISSAN	MAXIMA	210	63663	3.2986
31. NISSAN	350Z	100	30640	3.2637
32. FORD MOTOR CO	FORD FOCUS	436	135929	3.2076
33. FORD MOTOR CO	FORD CROWN VICTORIA	35	10955	3.1949
34. HYUNDAI	ACCENT	59	18685	3.1576
35. KIA	OPTIMA	143	45859	3.1183
36. MAZDA	6	190	67327	2.8220
37. FORD MOTOR CO	FORD MUSTANG	431	153977	2.7991
38. SUZUKI	RENO	22	7900	2.7848
39. MITSUBISHI	LANCER	121	43750	2.7657
40. GENERAL MOTORS	CHEVROLET AVEO	142	51353	2.7652
41. BMW	7	77	28012	2.7488
42. SUBARU	LEGACY/OUTBACK	59	21696	2.7194
43. DAIMLERCHRYSLER	CHRYSLER PACIFICA	224	82451	2.7168
44. MITSUBISHI	ECLIPSE	79	29582	2.6705
45. KIA	RIO	91	34103	2.6684
46. GENERAL MOTORS	CADILLAC DTS	173	65335	2.6479
47. BMW	M5	11	4309	2.5528
48. GENERAL MOTORS	CHEVROLET TRAILBLAZER	373	148522	2.5114
49. FORD MOTOR CO	LINCOLN TOWN CAR	97	40317	2.4059
50. TOYOTA	SCION TC	189	80576	2.3456
51. GENERAL MOTORS	CHEVROLET HHR	267	113967	2.3428
52. KIA	SPECTRA	184	79152	2.3246
53. TOYOTA	LEXUS LS	40	17220	2.3229
54. SUZUKI	VITARA/GRAND VITARA	107	46223	2.3149
55. GENERAL MOTORS	CADILLAC CTS	125	55066	2.2700
56. GENERAL MOTORS	BUICK RAINIER	26	11503	2.2603
57. NISSAN	ALTIMA	648	294015	2.2040
58. ISUZU	I SERIES PICKUP	10	4546	2.1997
59. BMW	6	17	7893	2.1538
60. TOYOTA	LEXUS SC	15	7008	2.1404
61. LOTUS	ELISE	3	1424	2.1067
62. GENERAL MOTORS	PONTIAC MONTANA VAN	44	20984	2.0968
63. GENERAL MOTORS	PONTIAC GTO	29	13857	2.0928
64. KIA	SORENTO	116	55515	2.0895
65. TOYOTA	TOYOTA CAMRY/SOLARA	517	252690	2.0460
66. JAGUAR	S-TYPE	14	6855	2.0423
67. AUDI	A8	11	5404	2.0355
68. BMW	M6	2	990	2.0202

FINAL REPORT OF THEFT RATES FOR MODEL YEAR 2006 PASSENGER MOTOR VEHICLES STOLEN IN CALENDAR YEAR
2006—Continued

Manufacturer	Make/model (line)	Thefts 2006	Production (Mfr's) 2006	2006 Theft rate (per 1,000 ve- hicles pro- duced)
69. DAIMLERCHRYSLER	JEEP WRANGLER	155	77976	1.9878
70. GENERAL MOTORS	CHEVROLET UPLANDER VAN	122	62521	1.9513
71. TOYOTA	TOYOTA COROLLA	653	336871	1.9384
72. GENERAL MOTORS	SATURN ION	186	96227	1.9329
73. GENERAL MOTORS	BUICK RENDEZVOUS	96	50649	1.8954
74. VOLVO	S80	14	7567	1.8501
75. DAIMLERCHRYSLER	JEEP LIBERTY	266	146897	1.8108
76. NISSAN	INFINITI G35	107	59442	1.8001
77. TOYOTA	LEXUS GS	92	51221	1.7961
78. HYUNDAI	TIBURON	41	22959	1.7858
79. NISSAN	INFINITI FX45	3	1693	1.7720
80. GENERAL MOTORS	CADILLAC XLR	7	3963	1.7663
81. HONDA	HONDA S2000	10	5666	1.7649
82. AUDI	A6/A6 QUATTRO/S6/S6 AVANT	32	18143	1.7638
83. DAIMLERCHRYSLER	DODGE CARAVAN/GRAND CARAVAN	416	235960	1.7630
84. HYUNDAI	ELANTRA	174	99126	1.7553
85. FORD MOTOR CO	FORD FUSION	217	125335	1.7314
86. MAZDA	5	35	20328	1.7218
87. JAGUAR	X-TYPE	10	5994	1.6683
88. NISSAN	QUEST VAN	42	25378	1.6550
89. FORD MOTOR CO	FORD FREESTAR VAN	84	51143	1.6425
90. MERCEDES-BENZ	203 (C-CLASS)	89	54492	1.6333
91. FORD MOTOR CO	FORD FIVE HUNDRED	134	83031	1.6139
92. HUMMER	H3	116	72227	1.6060
93. MAZDA	RX-8	10	6415	1.5588
94. MERCEDES-BENZ	220 (S-CLASS)	22	14472	1.5202
95. GENERAL MOTORS	PONTIAC VIBE	77	51168	1.5048
96. FORD MOTOR CO	MERCURY MOUNTAINEER	46	30676	1.4995
97. NISSAN	FRONTIER PICKUP	112	75112	1.4911
98. TOYOTA	SCION XB	125	87219	1.4332
99. GENERAL MOTORS	BUICK LACROSSE/ALLURE	107	76029	1.4074
100. JAGUAR	XKR	1	713	1.4025
101. TOYOTA	TOYOTA TUNDRA PICKUP	36	25764	1.3973
102. GENERAL MOTORS	GMC ENVOY	68	48745	1.3950
103. VOLVO	S60	30	21734	1.3803
104. GENERAL MOTORS	CHEVROLET EQUINOX	170	124123	1.3696
105. JAGUAR	XK8	2	1463	1.3671
106. VOLKSWAGEN	PASSAT	85	63019	1.3488
107. NISSAN	MURANO	105	77852	1.3487
108. NISSAN	PATHFINDER	100	74219	1.3474
109. BMW	5	62	46563	1.3315
110. FORD MOTOR CO	FORD RANGER PICKUP	110	83737	1.3136
111. MAZDA	3	125	95420	1.3100
112. NISSAN	XTERRA	78	59988	1.3003
113. MAZDA	MPV VAN	13	10054	1.2930
114. FORD MOTOR CO	MERCURY GRAND MARQUIS	64	49578	1.2909
115. VOLKSWAGEN	GOLF/RABBIT/GTI	24	18806	1.2762
116. MITSUBISHI	OUTLANDER	13	10190	1.2758
117. FORD MOTOR CO	FORD ESCAPE	194	152125	1.2753
118. TOYOTA	TOYOTA MATRIX	70	56291	1.2435
119. GENERAL MOTORS	CHEVROLET COLORADO PICKUP	129	104675	1.2324
120. HONDA	HONDA ACCORD	391	328780	1.1892
121. TOYOTA	TOYOTA TACOMA PICKUP	221	195700	1.1293
122. HONDA	ACURA TSX	44	40480	1.0870
123. GENERAL MOTORS	GMC CANYON PICKUP	29	26744	1.0844
124. GENERAL MOTORS	SATURN VUE	103	95178	1.0822
125. AUDI	A3/A3 QUATTRO	12	11162	1.0751
126. MAZDA	TRIBUTE	35	33565	1.0428
127. TOYOTA	LEXUS ES	32	30735	1.0412
128. MERCEDES-BENZ	129 (SL-CLASS)	7	6731	1.0400
129. FORD MOTOR CO	FORD FREESTYLE	57	54980	1.0367
130. NISSAN	INFINITI M35/M45	42	40627	1.0338
131. TOYOTA	TOYOTA 4RUNNER	108	104758	1.0309
132. AUDI	A4/A4 QUATTRO/S4/S4 AVANT	49	48023	1.0203
133. FORD MOTOR CO	MERCURY MILAN	35	34506	1.0143
134. DAIMLERCHRYSLER	CHRYSLER TOWN & COUNTRY	177	175760	1.0071
135. TOYOTA	SCION XA	50	49664	1.0068

FINAL REPORT OF THEFT RATES FOR MODEL YEAR 2006 PASSENGER MOTOR VEHICLES STOLEN IN CALENDAR YEAR
2006—Continued

Manufacturer	Make/model (line)	Thefts 2006	Production (Mfr's) 2006	2006 Theft rate (per 1,000 ve- hicles pro- duced)
136. MERCEDES-BENZ	208 (CLK-CLASS)	17	17150	0.9913
137. GENERAL MOTORS	PONTIAC TORRENT	48	48750	0.9846
138. NISSAN	INFINITI FX35	17	17326	0.9812
139. SUBARU	IMPREZA	41	41987	0.9765
140. SUZUKI	AERIO	17	17417	0.9761
141. HYUNDAI	SANTA FE	32	32802	0.9756
142. HONDA	ACURA 3.2 TL	74	77849	0.9506
143. GENERAL MOTORS	CHEVROLET CORVETTE	30	31595	0.9495
144. GENERAL MOTORS	BUICK LUCERNE	81	85961	0.9423
145. HYUNDAI	TUCSON	52	55399	0.9386
146. TOYOTA	TOYOTA AVALON	90	97247	0.9255
147. ASTON MARTIN	DB9	1	1085	0.9217
148. GENERAL MOTORS	CADILLAC FUNERAL COACH/HEARSE	1	1096	0.9124
149. MERCEDES-BENZ	210 (E-CLASS)	55	61563	0.8934
150. VOLVO	V50	4	4480	0.8929
151. VOLKSWAGEN	JETTA	108	123317	0.8758
152. FORD MOTOR CO	MERCURY MONTEGO	17	19464	0.8734
153. JAGUAR	XJ8/XJ8L	3	3444	0.8711
154. TOYOTA	LEXUS IS	43	49960	0.8607
155. BMW	3	127	151673	0.8373
156. FORD MOTOR CO	LINCOLN ZEPHYR	26	31265	0.8316
157. TOYOTA	TOYOTA RAV4	94	114912	0.8180
158. VOLVO	S40	20	24505	0.8162
159. ISUZU	ASCENDER	3	3857	0.7778
160. HYUNDAI	AZERA	19	24492	0.7758
161. PORSCHE	BOXSTER	4	5314	0.7527
162. PORSCHE	CAYMAN	4	5360	0.7463
163. SUBARU	B9 TRIBECA	22	30027	0.7327
164. BENTLEY MOTORS	CONTINENTAL	3	4097	0.7322
165. VOLVO	XC90	24	32962	0.7281
166. KIA	SPORTAGE	30	42832	0.7004
167. FORD MOTOR CO	MERCURY MARINER	21	30137	0.6968
168. GENERAL MOTORS	PONTIAC SOLSTICE	13	18748	0.6934
169. VOLKSWAGEN	NEW BEETLE	27	41361	0.6528
170. HONDA	HONDA ELEMENT	29	45132	0.6426
171. GENERAL MOTORS	CADILLAC STS	20	31368	0.6376
172. BMW	Z4/M	7	10981	0.6375
173. TOYOTA	TOYOTA SIENNA VAN	120	192771	0.6225
174. TOYOTA	LEXUS RX	48	77147	0.6222
175. DAIMLERCHRYSLER	DODGE VIPER	1	1630	0.6135
176. PORSCHE	911	8	13407	0.5967
177. SAAB	9-2X	1	1731	0.5777
178. KIA	SEDONA VAN	30	52064	0.5762
179. MITSUBISHI	MONTERO	1	1778	0.5624
180. TOYOTA	TOYOTA HIGHLANDER	96	176213	0.5448
181. BMW	X3	15	27743	0.5407
182. MAZDA	MX-5 MIATA	11	20688	0.5317
183. SUBARU	FORESTER	28	54405	0.5147
184. FORD MOTOR CO	MERCURY MONTEREY VAN	2	4017	0.4979
185. HONDA	HONDA PILOT	73	147629	0.4945
186. SAAB	9-3	11	22542	0.4880
187. HONDA	ACURA 3.5 RL	6	12556	0.4779
188. VOLVO	V70	3	6355	0.4721
189. HONDA	HONDA CR-V	70	149659	0.4677
190. VOLVO	XC70	6	12895	0.4653
191. GENERAL MOTORS	SATURN RELAY	2	4935	0.4053
192. HONDA	HONDA ODYSSEY VAN	75	192364	0.3899
193. HONDA	ACURA MDX	20	51380	0.3893
194. BMW	MINI COOPER	17	51271	0.3316
195. SUBARU	BAJA	2	7498	0.2667
196. MAZDA	B SERIES PICKUP	1	4229	0.2365
197. GENERAL MOTORS	BUICK TERRAZA VAN	3	12767	0.2350
198. DAIMLERCHRYSLER	CHRYSLER CROSSFIRE	1	6186	0.1617
199. TOYOTA	TOYOTA PRIUS	14	87310	0.1603
200. MERCEDES-BENZ	170 (SLK-CLASS)	2	13475	0.1484
201. SUBARU	OUTBACK	5	57806	0.0865
202. ASTON MARTIN	VANQUISH	0	467	0.0000

FINAL REPORT OF THEFT RATES FOR MODEL YEAR 2006 PASSENGER MOTOR VEHICLES STOLEN IN CALENDAR YEAR 2006—Continued

Manufacturer	Make/model (line)	Thefts 2006	Production (Mfr's) 2006	2006 Theft rate (per 1,000 vehicles produced)
203. ASTON MARTIN	VANTAGE	0	161	0.0000
204. AUDI	TT	0	1199	0.0000
205. BENTLEY MOTORS	ARNAGE	0	228	0.0000
206. BUGATTI	VEYRON	0	17	0.0000
207. FERRARI	MARANELLO/F1	0	1392	0.0000
208. FORD MOTOR CO	FORD GT	0	1729	0.0000
209. GENERAL MOTORS	CADILLAC LIMOUSINE	0	922	0.0000
210. HONDA	HONDA INSIGHT	0	803	0.0000
211. JAGUAR	VANDEN PLAS/SUPER V8	0	1761	0.0000
212. JAGUAR	XJR	0	307	0.0000
213. LAMBORGHINI	GALLARDO	0	392	0.0000
214. MASERATI	GRANSPORT	0	51	0.0000
215. MASERATI	QUATTROPORTE	0	1609	0.0000
216. MASERATI	SPYDER/F1	0	777	0.0000
217. NISSAN	INFINITI Q45	0	140	0.0000
218. SAAB	9-5	0	11620	0.0000
219. SAAB	9-7X	0	5484	0.0000
220. SALEEN	S7	0	16	0.0000
221. SPYKER	C8	0	13	0.0000
222. TOYOTA	TOYOTA YARIS	0	2571	0.0000
223. VOLKSWAGEN	PHAETON	0	259	0.0000

Issued on: October 7, 2008.

Stephen R. Kratzke,

Associate Administrator for Rulemaking.

[FR Doc. E8-24231 Filed 10-10-08; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 222 and 223

[Docket No. 0810061316-81321-01]

RIN 0648-XL11

Sea Turtle Conservation; Shrimp Trawling Requirements

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule.

SUMMARY: NMFS issues this temporary rule for a period of 30 days, to allow shrimp fishermen to use limited tow times as an alternative to Turtle Excluder Devices (TEDs) in state and Federal waters offshore of Texas (from the Texas/Louisiana boundary southward to the boundary shared by Matagorda and Brazoria Counties; approximately 95° 32'W. long.) extending offshore 20 nautical miles. This action is necessary because environmental conditions resulting from

Hurricane Ike are preventing some fishermen from using TEDs effectively.

DATES: Effective from October 8, 2008 through November 7, 2008.

FOR FURTHER INFORMATION CONTACT: Michael Barnette, 727-551-5794.

SUPPLEMENTARY INFORMATION:

Background

All sea turtles that occur in U.S. waters are listed as either endangered or threatened under the Endangered Species Act of 1973 (ESA). The Kemp's ridley (*Lepidochelys kempii*), leatherback (*Dermochelys coriacea*), and hawksbill (*Eretmochelys imbricata*) turtles are listed as endangered. The loggerhead (*Caretta caretta*) and green (*Chelonia mydas*) turtles are listed as threatened, except for breeding populations of green turtles in Florida and on the Pacific coast of Mexico, which are listed as endangered.

Sea turtles are incidentally taken, and some are killed, as a result of numerous activities, including fishery-related trawling activities in the Gulf of Mexico and along the Atlantic seaboard. Under the ESA and its implementing regulations, the taking of sea turtles is prohibited, with exceptions identified in 50 CFR 223.206(d), or according to the terms and conditions of a biological opinion issued under section 7 of the ESA, or according to an incidental take permit issued under section 10 of the ESA. The incidental taking of turtles during shrimp or summer flounder trawling is exempted from the taking

prohibition of section 9 of the ESA if the conservation measures specified in the sea turtle conservation regulations (50 CFR 223) are followed. The regulations require most shrimp trawlers and summer flounder trawlers operating in the southeastern United States (Atlantic area, Gulf area, and summer flounder sea turtle protection area, see 50 CFR 223.206) to have a NMFS-approved TED installed in each net that is rigged for fishing to allow sea turtles to escape. TEDs currently approved by NMFS include single-grid hard TEDs and hooped hard TEDs conforming to a generic description, the flounder TED, and one type of soft TED the Parker soft TED (see 50 CFR 223.207).

TEDs incorporate an escape opening, usually covered by a webbing flap, which allows sea turtles to escape from trawl nets. To be approved by NMFS, a TED design must be shown to be 97 percent effective in excluding sea turtles during testing based upon specific testing protocols (50 CFR 223.207(e)(1)). Most approved hard TEDs are described in the regulations (50 CFR 223.207(a)) according to generic criteria based upon certain parameters of TED design, configuration, and installation, including height and width dimensions of the TED opening through which the turtles escape.

The regulations governing sea turtle take prohibitions and exemptions provide for the use of limited tow times as an alternative to the use of TEDs for vessels with certain specified

characteristics or under certain special circumstances. The provisions of 50 CFR 223.206(d)(3)(ii) specify that the NOAA Assistant Administrator for Fisheries (AA) may authorize compliance with tow time restrictions as an alternative to the TED requirement if the AA determines that the presence of algae, seaweed, debris, or other special environmental conditions in a particular area makes trawling with TED-equipped nets impracticable. The provisions of 50 CFR 223.206(d)(3)(i) specify the maximum tow times that may be used when tow time limits are authorized as an alternative to the use of TEDs. Each tow may be no more than 55 minutes from April 1 through October 31 and no more than 75 minutes from November 1 through March 31, as measured from the time that the trawl doors enter the water until they are removed from the water. These tow time limits are designed to minimize the level of mortality of sea turtles that are captured by trawl nets not equipped with TEDs.

Recent Events

On September 29, 2008, the NMFS Southeast Regional Administrator received a request from the Texas Parks and Wildlife Department (TPWD) to allow the use of tow times as an alternative to TEDs in state and federal waters because of excessive storm-related debris on the fishing grounds as a result of Hurricane Ike. When a TED is clogged with debris, it can no longer catch shrimp effectively nor can it effectively exclude turtles. Phone conversations between NMFS Southeast Region's Protected Resources staff, fishermen, and the state's resource agency staff confirm there are problems with debris in state and Federal waters off Texas (from the Texas/Louisiana boundary southward to the boundary shared by Matagorda and Brazoria Counties; approximately 95° 32'W. long.) extending offshore 20 nautical miles, which are likely to affect the effectiveness of TEDs. Texas has stated that their marine enforcement agents will enforce the tow time restrictions.

Special Environmental Conditions

The AA finds that debris washed into hurricane-affected state and Federal waters off of Texas (from the Texas/Louisiana boundary southward to the boundary shared by Matagorda and Brazoria Counties; approximately 95° 32'W. long.), extending offshore 20 nautical miles, has created special environmental conditions that make trawling with TED-equipped nets impracticable. Therefore, the AA issues this notification to authorize the use of

restricted tow times as an alternative to the use of TEDs in state and Federal waters off of Texas (from the Texas/Louisiana boundary southward to the boundary shared by Matagorda and Brazoria Counties; approximately 95° 32'W. long.) extending offshore 20 nautical miles, for a period of 30 days. Tow times must be limited to no more than 55 minutes until October 31, and no more than 75 minutes thereafter, as measured from the time that the trawl doors enter the water until they are removed from the water.

Continued Use of TEDs

NMFS encourages shrimp trawlers in the affected areas to continue to use TEDs if possible, even though they are authorized under this action to use restricted tow times.

NMFS' gear experts have provided several general operational recommendations to fishermen to maximize the debris exclusion ability of TEDs that may allow some fishermen to continue using TEDs without resorting to restricted tow times. To exclude debris, NMFS recommends the use of hard TEDs made of either solid rod or of hollow pipe that incorporate a bent angle at the escape opening, in a bottom-opening configuration. In addition, the installation angle of a hard TED in the trawl extension is an important performance element in excluding debris from the trawl. High installation angles can trap debris either on or in front of the bars of the TED; NMFS recommends an installation angle of 45E, relative to the normal horizontal flow of water through the trawl, to optimize the TED's ability to exclude turtles and debris. Furthermore, the use of accelerator funnels, which are allowable modifications to hard TEDs, is not recommended in areas with heavy amounts of debris or vegetation. Lastly, the webbing flap that is usually installed to cover the turtle escape opening may be modified to help exclude debris quickly: the webbing flap can either be cut horizontally to shorten it so that it does not overlap the frame of the TED or be slit in a fore-and-aft direction to facilitate the exclusion of debris. The use of the double cover flap TED will also aid in debris exclusion.

All of these recommendations represent legal configurations of TEDs for shrimpers fishing in the affected areas. This action does not authorize any other departure from the TED requirements, including any illegal modifications to TEDs. In particular, if TEDs are installed in trawl nets, they may not be sewn shut.

Alternative to Required Use of TEDs

The authorization provided by this rule applies to all shrimp trawlers that would otherwise be required to use TEDs in accordance with the requirements of 50 CFR 223.206(d)(2) who are operating in hurricane-affected state and Federal waters off Texas (from the Texas/Louisiana boundary southward to the boundary shared by Matagorda and Brazoria Counties; approximately 95° 32'W. long.), extending offshore 20 nautical miles, for a period of 30 days. Through this temporary rule, shrimp trawlers may choose either restricted tow times or TEDs to comply with the sea turtle conservation regulations, as prescribed above.

Alternative to Required Use of TEDs; Termination

The AA, at any time, may withdraw or modify this temporary authorization to use tow time restrictions in lieu of TEDs through publication of a notice in the **Federal Register**, if necessary to ensure adequate protection of endangered and threatened sea turtles. Under this procedure, the AA may modify the affected area or impose any necessary additional or more stringent measures, including more restrictive tow times, synchronized tow times, or withdrawal of the authorization if the AA determines that the alternative authorized by this rule is not sufficiently protecting turtles or no longer needed. The AA may also terminate this authorization if information from enforcement, state authorities, or NMFS indicates compliance cannot be monitored effectively. This authorization will expire automatically on November 7, 2008, unless it is explicitly extended through another notification published in the **Federal Register**.

Classification

This action has been determined to be not significant for purposes of Executive Order 12866.

The AA has determined that this action is necessary to respond to an environmental situation to allow more efficient fishing for shrimp, while providing effective protection for endangered and threatened sea turtles pursuant to the ESA and applicable regulations.

Pursuant to 5 U.S.C. 553(b)(B), the AA finds that there is good cause to waive prior notice and opportunity to comment on this rule. The AA finds that unusually high amounts of debris are creating special environmental conditions that make trawling with TED-equipped nets impracticable. Prior

notice and opportunity to comment are impracticable and contrary to the public interest in this instance because providing notice and comment would prevent the agency from providing the affected industry relief from the effects of Hurricane Ike in a timely manner, while continuing to provide effective protection for sea turtles.

Many fishermen may be unable to operate under the special environmental conditions created by Hurricane Ike without an alternative to the use of TEDs. Therefore, the AA finds that there is good cause to waive the 30-day delay in effective date pursuant to 5 U.S.C. 553(d)(3) to provide alternatives to comply with the sea turtle regulations in a timely manner. For the reasons above, the AA finds that this temporary rule should not be subject to a 30-day delay in effective date, pursuant to 5 U.S.C. 553(d)(1).

Since prior notice and an opportunity for public comment are not required to be provided for this action by 5 U.S.C. 553, or by any other law, the analytical requirements of 5 U.S.C. 601 *et seq.* are inapplicable.

Dated: October 7, 2008.

James W. Balsiger,

*Acting Assistant Administrator for Fisheries,
National Marine Fisheries Service.*

[FR Doc. E8-24280 Filed 10-8-08; 4:15 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 229

[Docket No. 0810071323-81326-01]

RIN 0648-XL09

Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule.

SUMMARY: The Assistant Administrator for Fisheries (AA), NOAA, announces temporary restrictions consistent with the requirements of the Atlantic Large Whale Take Reduction Plan's (ALWTRP) implementing regulations. These regulations apply to lobster trap/pot and anchored gillnet fishermen in an area totaling approximately 1,445 nm² (4,956 km²), southeast of Portland, Maine for 15 days. The purpose of this

action is to provide protection to an aggregation of northern right whales (right whales).

DATES: Effective beginning at 0001 hours October 16, 2008, through 2400 hours November 1, 2008.

ADDRESSES: Copies of the proposed and final Dynamic Area Management (DAM) rules, Environmental Assessments (EAs), Atlantic Large Whale Take Reduction Team (ALWTRT) meeting summaries, and progress reports on implementation of the ALWTRP may also be obtained by writing Diane Borggaard, NMFS/Northeast Region, One Blackburn Drive, Gloucester, MA 01930.

FOR FURTHER INFORMATION CONTACT: Diane Borggaard, NMFS/Northeast Region, 978-281-9300 x6503; or Kristy Long, NMFS, Office of Protected Resources, 301-713-2322.

SUPPLEMENTARY INFORMATION:

Electronic Access

Several of the background documents for the ALWTRP and the take reduction planning process can be downloaded from the ALWTRP web site at <http://www.nero.noaa.gov/whaletrp/>.

Background

The ALWTRP was developed pursuant to section 118 of the Marine Mammal Protection Act (MMPA) to reduce the incidental mortality and serious injury of three endangered species of whales (right, fin, and humpback) due to incidental interaction with commercial fishing activities. In addition, the measures identified in the ALWTRP would provide conservation benefits to a fourth species (minke), which are neither listed as endangered nor threatened under the Endangered Species Act (ESA). The ALWTRP, implemented through regulations codified at 50 CFR 229.32, relies on a combination of fishing gear modifications and time/area closures to reduce the risk of whales becoming entangled in commercial fishing gear (and potentially suffering serious injury or mortality as a result).

On January 9, 2002, NMFS published the final rule to implement the ALWTRP's DAM program (67 FR 1133). On August 26, 2003, NMFS amended the regulations by publishing a final rule, which specifically identified gear modifications that may be allowed in a DAM zone (68 FR 51195). The DAM program provides specific authority for NMFS to restrict temporarily on an expedited basis the use of lobster trap/pot and anchored gillnet fishing gear in order to protect right whales and is applicable to areas north of 42°30' N.

lat. Under the DAM program, NMFS may: (1) require the removal of all lobster trap/pot and anchored gillnet fishing gear for a 15-day period; (2) allow lobster trap/pot and anchored gillnet fishing within a DAM zone with gear modifications determined by NMFS to sufficiently reduce the risk of entanglement; and/or (3) issue an alert to fishermen requesting the voluntary removal of all lobster trap/pot and anchored gillnet gear for a 15-day period and asking fishermen not to set any additional gear in the DAM zone during the 15-day period.

A DAM zone is triggered when NMFS receives a reliable report from a qualified individual of three or more right whales sighted within an area (75 nm² (257 km²)) such that right whale density is equal to or greater than 0.04 right whales per nm² (3.43 km²). A qualified individual is an individual ascertained by NMFS to be reasonably able, through training or experience, to identify a right whale. Such individuals include, but are not limited to, NMFS staff, U.S. Coast Guard and Navy personnel trained in whale identification, scientific research survey personnel, whale watch operators and naturalists, and mariners trained in whale species identification through disentanglement training or some other training program deemed adequate by NMFS. A reliable report would be a credible right whale sighting.

On October 6, 2008, an aerial survey reported an aggregation of four right whales in the proximity of 43° 00' N. lat. and 69° 58' W. long. The position lies approximately 40 nm southeast of Portland, Maine. After conducting an investigation, NMFS ascertained that the report came from a qualified individual and determined that the report was reliable. Thus, NMFS has received a reliable report from a qualified individual of the requisite right whale density to trigger the DAM provisions of the ALWTRP.

Once a DAM zone is triggered, NMFS determines whether to impose restrictions on fishing and/or fishing gear in the zone. This determination is based on the following factors, including but not limited to: the location of the DAM zone with respect to other fishery closure areas, weather conditions as they relate to the safety of human life at sea, the type and amount of gear already present in the area, and a review of recent right whale entanglement and mortality data.

NMFS has reviewed the factors and management options noted above relative to the DAM under consideration. As a result of this review, NMFS prohibits lobster trap/pot and

anchored gillnet gear in this area during the 15-day restricted period unless it is modified in the manner described in this temporary rule.

The DAM Zone is bound by the following coordinates:

- 43° 19' N., 70° 25' W. (NW Corner)
- 43° 19' N., 69° 33' W.
- 42° 41' N., 69° 33' W.
- 42° 41' N., 70° 25' W.
- 43° 19' N., 70° 25' W. (NW Corner)

In addition to those gear modifications currently implemented under the ALWTRP at 50 CFR 229.32, the following gear modifications are required in the DAM zone. If the requirements and exceptions for gear modification in the DAM zone, as described below, differ from other ALWTRP requirements for any overlapping areas and times, then the more restrictive requirements will apply in the DAM zone. Special note for gillnet fisherman: a portion of this DAM zone overlaps the year-round Western Gulf of Maine Closure Area for Northeast Multispecies found at 50 CFR 648.81(e). Due to this closure, sink gillnet gear is prohibited from this portion of the DAM zone.

Lobster Trap/Pot Gear

Fishermen utilizing lobster trap/pot gear within portions of Northern Inshore State Trap/Pot Waters and Northern Nearshore Trap/Pot Waters, and the Stellwagen Bank/Jeffreys Ledge Restricted Area that overlap with the DAM zone are required to utilize all of the following gear modifications while the DAM zone is in effect:

1. Groundlines must be made of sinking line. Floating groundlines are prohibited;
2. All buoy lines must be made of sinking line, except the bottom portion of the line, which may be a section of floating line not to exceed one-third the overall length of the buoy line;
3. Fishermen are allowed to use two buoy lines per trawl; and
4. A weak link with a maximum breaking strength of 600 lb (272.4 kg) must be placed at all buoys.

Fishermen utilizing lobster trap/pot gear within the portions of Offshore Trap/Pot Waters that overlap with the DAM zone are required to utilize all of the following gear modifications while the DAM zone is in effect:

1. Groundlines must be made of sinking line. Floating groundlines are prohibited;
2. All buoy lines must be made of sinking line, except the bottom portion of the line, which may be a section of floating line not to exceed one-third the overall length of the buoy line;
3. Fishermen are allowed to use two buoy lines per trawl; and

4. A weak link with a maximum breaking strength of 1,500 lb (680.4 kg) must be placed at all buoys.

Anchored Gillnet Gear

Fishermen utilizing anchored gillnet gear within the portions of Other Northeast Gillnet Waters and the Stellwagen Bank/Jeffreys Ledge Restricted Area that overlap with the DAM zone are required to utilize all the following gear modifications while the DAM zone is in effect:

1. Groundlines must be made of sinking line. Floating groundlines are prohibited;
2. All buoy lines must be made of sinking line, except the bottom portion of the line, which may be a section of floating line not to exceed one-third the overall length of the buoy line;
3. Fishermen are allowed to use two buoy lines per string;
4. The breaking strength of each net panel weak link must not exceed 1,100 lb (498.8 kg). The weak link requirements apply to all variations in net panel size. One weak link must be placed in the center of the floatline and one weak link must be placed in the center of each of the up and down lines at both ends of the net panel. Additionally, one weak link must be placed as close as possible to each end of the net panels on the floatline; or, one weak link must be placed between floatline tie-loops between net panels and one weak link must be placed where the floatline tie-loops attach to the bridle, buoy line, or groundline at each end of a net string;
5. A weak link with a maximum breaking strength of 1,100 lb (498.8 kg) must be placed at all buoys; and
6. All anchored gillnets, regardless of the number of net panels, must be securely anchored with the holding power of at least a 22 lb (10.0 kg) Danforth-style anchor at each end of the net string.

The restrictions will be in effect beginning at 0001 hours October 16, 2008, through 2400 hours November 1, 2008, unless terminated sooner or extended by NMFS through another notification in the **Federal Register**.

The restrictions will be announced to state officials, fishermen, ALWTRT members, and other interested parties through e-mail, phone contact, NOAA website, and other appropriate media immediately upon issuance of the rule by the AA.

Classification

In accordance with section 118(f)(9) of the MMPA, the Assistant Administrator (AA) for Fisheries has determined that this action is necessary to implement a

take reduction plan to protect North Atlantic right whales.

Environmental Assessments for the DAM program were prepared on December 28, 2001, and August 6, 2003. This action falls within the scope of the analyses of these EAs, which are available from the agency upon request.

NMFS provided prior notice and an opportunity for public comment on the regulations establishing the criteria and procedures for implementing a DAM zone. Providing prior notice and opportunity for comment on this action, pursuant to those regulations, would be impracticable because it would prevent NMFS from executing its functions to protect and reduce serious injury and mortality of endangered right whales. The regulations establishing the DAM program are designed to enable the agency to help protect unexpected concentrations of right whales. In order to meet the goals of the DAM program, the agency needs to be able to create a DAM zone and implement restrictions on fishing gear as soon as possible once the criteria are triggered and NMFS determines that a DAM restricted zone is appropriate. If NMFS were to provide prior notice and an opportunity for public comment upon the creation of a DAM restricted zone, the aggregated right whales would be vulnerable to entanglement which could result in serious injury and mortality. Additionally, the right whales would most likely move on to another location before NMFS could implement the restrictions designed to protect them, thereby rendering the action obsolete. Therefore, pursuant to 5 U.S.C. 553(b)(B), the AA finds that good cause exists to waive prior notice and an opportunity to comment on this action to implement a DAM restricted zone to reduce the risk of entanglement of endangered right whales in commercial lobster trap/pot and anchored gillnet gear as such procedures would be impracticable.

For the same reasons, the AA finds that, under 5 U.S.C. 553(d)(3), good cause exists to waive the 30-day delay in effective date. If NMFS were to delay the effective date of this action for 30 days, the aggregated right whales would be vulnerable to entanglement, which could cause serious injury and mortality. Additionally, right whales would likely move to another location between the time NMFS approved the action creating the DAM restricted zone and the time it went into effect, thereby rendering the action obsolete and ineffective. Nevertheless, NMFS recognizes the need for fishermen to have time to either modify or remove (if not in compliance with the required

restrictions) their gear from a DAM zone once one is approved. Thus, NMFS makes this action effective 2 days after the date of publication of this document in the **Federal Register**. NMFS will also endeavor to provide notice of this action to fishermen through other means upon issuance of the rule by the AA, thereby providing approximately 3 additional days of notice while the Office of the **Federal Register** processes the document for publication.

NMFS determined that the regulations establishing the DAM program and actions such as this one taken pursuant to those regulations are consistent to the maximum extent practicable with the enforceable policies of the approved coastal management program of the U.S. Atlantic coastal states. This determination was submitted for review by the responsible state agencies under section 307 of the Coastal Zone Management Act. Following state review of the regulations creating the DAM program, no state disagreed with NMFS' conclusion that the DAM program is consistent to the maximum extent practicable with the enforceable policies of the approved coastal management program for that state.

The DAM program under which NMFS is taking this action contains policies with federalism implications warranting preparation of a federalism assessment under Executive Order 13132. Accordingly, in October 2001 and March 2003, the Assistant Secretary for Intergovernmental and Legislative Affairs, Department of Commerce, provided notice of the DAM program and its amendments to the appropriate elected officials in states to be affected by actions taken pursuant to the DAM program. Federalism issues raised by state officials were addressed in the final rules implementing the DAM program. A copy of the federalism Summary Impact Statement for the final rules is available upon request (**ADDRESSES**).

The rule implementing the DAM program has been determined to be not significant under Executive Order 12866.

Authority: 16 U.S.C. 1361 *et seq.* and 50 CFR 229.32(g)(3)

Dated: October 7, 2008.

James W. Balsiger,

Acting Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. E8-24272 Filed 10-8-08; 4:15 pm]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 060824226-6322-02]

RIN 0648-AX30

Magnuson-Stevens Act Provisions; Fisheries Off West Coast States; Pacific Coast Groundfish Fishery; Biennial Specifications and Management Measures; Inseason Adjustments

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule; inseason adjustments to groundfish management measures; request for comments.

SUMMARY: This final rule announces inseason changes to management measures in the Pacific Coast groundfish fisheries including: trip limit adjustments; the reopening of the Pacific whiting primary seasons for the shore-based, catcher/processor, and mothership sectors; bycatch limit increases; and modifications to the trawl Rockfish Conservation Areas. These routine actions, are authorized by the Pacific Coast Groundfish Fishery Management Plan (FMP), and are intended to allow fisheries to access more abundant groundfish stocks while protecting overfished and depleted stocks.

DATES: Effective 0001 hours (local time) October 10, 2008. Comments on this action must be received no later than October 29, 2008.

ADDRESSES: You may submit comments, identified by RIN 0648-AX30 by any of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal <http://www.regulations.gov>.
- Fax: 206-526-6736, Attn: Becky Renko.
- Mail: D. Robert Lohn, Administrator, Northwest Region, NMFS, Attn: Becky Renko, 7600 Sand Point Way NE, Seattle, WA 98115-0070.

Instructions: All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All personal identifying information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information, or otherwise sensitive or

protected information. NMFS will accept anonymous comments (enter N/A in the required fields if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

Copies of additional reports referred to in this document may also be obtained from the Pacific Fishery Management Council (Council). Copies of the Record of Decision (ROD), final regulatory flexibility analysis (FRFA), and the Small Entity Compliance Guide are available from D. Robert Lohn, Administrator, Northwest Region (Regional Administrator), NMFS, 7600 Sand Point Way, NE, Seattle, WA 98115-0070.

FOR FURTHER INFORMATION CONTACT: Becky Renko (Northwest Region, NMFS) 206-526-6110.

SUPPLEMENTARY INFORMATION: Electronic Access: This final rule is accessible via the Internet at the Office of the **Federal Register's** Website at <http://www.gpoaccess.gov/fr/index.html>. Background information and documents are available at the Council's website at <http://www.pcouncil.org/>.

Background

The Pacific Coast Groundfish FMP and its implementing regulations at title 50 in the Code of Federal Regulations (CFR), part 660, subpart G, regulate fishing for over 90 species of groundfish off the coasts of Washington, Oregon, and California. Groundfish specifications and management measures are developed by the Council and are implemented by NMFS. A proposed rule to implement the 2007 2008 specifications and management measures for the Pacific Coast groundfish fishery and Amendment 16 4 of the FMP was published on September 29, 2006 (71 FR 57764). The final rule to implement the 2007 2008 specifications and management measures for the Pacific Coast Groundfish Fishery was published on December 29, 2006 (71 FR 78638). These specifications and management measures are codified in 50 CFR part 660, subpart G. The final rule was subsequently amended on: March 20, 2007 (72 FR 13043); April 18, 2007 (72 FR 19390); July 5, 2007 (72 FR 36617); August 3, 2007 (72 FR 43193); September 18, 2007 (72 FR 53165); October 4, 2007 (72 FR 56664); December 4, 2007 (72 FR 68097); December 18, 2007 (72 FR 71583); April 18, 2008 (73 FR 21057), and July 24, 2008 (73 FR 43139).

Inseason adjustments to the current groundfish management measures were

recommended by the Council in consultation with the Pacific Coast Treaty Indian Tribes and the States of Washington, Oregon, and California, at the Council's September 10 14, 2008, meeting in Boise, Idaho. The Pacific Council recommended the following adjustments to current groundfish management measures in response to updated fishery information: (1) increase the 2008 canary rockfish and widow rockfish bycatch limits for the non-tribal sectors of the whiting fishery; (2) reopen the 2008 non-tribal whiting primary season for the catcher/processor, mothership, and shore-based sectors; (3) move the shoreward boundary of the trawl Rockfish Conservation Area (RCA) north of 40°10.00' north latitude from 60–fm (110–m) to 75–fm (137–m), with the exception of the areas north of Cape Alava (48°10.00' north latitude) and between Cape Arago (4°20.83' north latitude) and Humbug mountain (42°40.50' north latitude); (4) coastwide, increase large footrope (and small footrope in the north) trawl trip limits for petrale sole and Dover sole for period 6; (5) increase small footrope chilipepper rockfish limits in the south; (6) increase the weekly and monthly cumulative limits for sablefish in the limited entry fixed gear daily trip limit fishery north of 36°00.00' north latitude; (7) increase shelf rockfish limits for open access gears south of Point Conception (34°27.00' north latitude) and, (8) take action to close the recreational fisheries off the State of California in the North and North Central management areas.

Catch of canary rockfish by scientific research vessels and catch in the limited entry trawl fisheries has been lower than was projected earlier in 2008. Scientific research catch projections made at the beginning of the year indicated that 5.5 mt of canary rockfish would be taken as scientific research catch in 2008, with 5.2 mt estimated to be taken in the Northwest Fishery Science Center's bottom trawl survey. To prevent an overfished species optimum yield (OY) from being exceeded, the amount projected to be taken during scientific research activities is not available to the groundfish fisheries until the activities are completed or near completion. NMFS and the Council have a better estimate of what is actually taken and the remainder can be released to the fishery.

When the Council considered inseason measures at its September 2008 meeting, the Northwest Fishery Science Center's bottom trawl survey was nearing completion and had passed

most of the locations where previous surveys had encountered an abundance of canary rockfish. Updated projections from the bottom trawl survey (data through September 10, 2008) indicated that less than 2.6 mt of canary rockfish would be taken in the Northwest Fishery Science Center's bottom trawl survey in 2008. When combined with catch projections from other scientific research work, the revised projection for scientific research catch of canary rockfish is 2.9 mt. The revised projection is 2.6 mt less than the earlier projection.

Because catch projections early in the year use historical data to project effort, they are revised as the fishing year progresses and current-year data becomes available. Actual catch records indicate that trawl effort in areas shoreward of the trawl RCA north of 40°10.00' north latitude has been lower than projected. Implementation of a 60–fm (110–m) shoreward boundary in much of this area was intended to reduce incidental catch of canary rockfish, but may have discouraged more effort in the north than had been expected. Effort reductions may also be the result of vessels shifting to other trawl opportunities such as pink shrimp.

Catch projections for canary rockfish are in part based on a historical understanding of fishing effort. Fishing effort reductions resulted in less canary rockfish being taken than had been projected earlier in the year. Updated projections indicate that if no inseason adjustment were made, 3.5 mt of canary rockfish would be unharvested at the end of 2008 due to lower than projected commercial and scientific research catch. Given the availability of canary rockfish, the Council considered inseason adjustments to bycatch limits, trip limits, and RCA restrictions for the Pacific whiting primary season fisheries, and the limited entry bottom trawl fishery.

Pacific Whiting Fishery

Bycatch limits have been used to restrict the catch of overfished species, particularly canary, darkblotched and widow rockfish, in the non-tribal Pacific whiting fisheries. With bycatch limits, the industry has the opportunity to harvest a larger Pacific whiting OY, providing the incidental catch of overfished species does not exceed the adopted bycatch limits. If a bycatch limit is reached, all non-tribal sectors of the whiting fishery are closed. For 2008, the following bycatch limits were specified for the non-tribal Pacific whiting sectors: 275 mt for widow

rockfish, 4.7 mt for canary rockfish, and 40 mt for darkblotched rockfish.

The 2008 Pacific whiting primary seasons were closed for the catcher/processor, mothership and shore-based sectors on August 19, 2008 (September 17, 2008; 73 FR 53763) when catch estimates indicated that the 4.7 mt bycatch limit for canary rockfish had been reached. When the fisheries were closed the shore-based sector had taken only 35.5 percent of its Pacific whiting allocation, the catcher/processor sector had taken 62.3 percent of its allocation, and the mothership sector had taken 84.0 percent of its allocation.

At its September meeting, the Council considered increasing the canary and widow rockfish bycatch limits and reopening of the non-tribal sectors of the Pacific whiting fishery. Following discussion and public testimony, the Council recommended increasing the widow rockfish bycatch limit by 12 metric tons (from 275 mt to 287 mt) and increasing the canary rockfish bycatch limit by 2 metric tons (from 4.7 mt to 6.7 mt). With the Canary rockfish bycatch limit the Council recommended that the limit be raised by 1.7 mt (to 6.4 mt) upon reopening of the fishery then increase by 0.3 mt (to 6.7 mt) two weeks following the re-opening, but no later than October 26, 2008.

The Council considered the incremental increase of canary rockfish bycatch limits as a conservation measure. Historical data indicates that bycatch rates tend to be higher at the start of the Pacific whiting fisheries. As the fishery reopens, fishers will need to locate harvestable aggregations of Pacific whiting while minimizing the incidental catch of canary and widow rockfish. Increasing the bycatch limit two weeks after the fishery re-opens, when the incidental catch rates are expected to be lower, is expected to allow a greater proportion of the Pacific whiting allocations to be harvested. In addition, the Council expressed concern about stopping the fishery before a bycatch limit is exceeded so as not to exceed a rebuilding based OY. Increasing the bycatch limit after two weeks would provide a buffer while catch data were gathered and fishing patterns are established and understood. A 0.3 mt buffer at start-up would provide managers with an increased degree of certainty that fishery can be closed without going over the bycatch limit.

When the Council considered possible reopening dates, it indicated that reopening the fishery as quickly as possible would be beneficial to the fishery participants because the aggregations of whiting begin to move

into deeper waters and disperse later in the year, and may result in increased bycatch rates for non-whiting species, and; because late autumn weather is more dangerous for smaller vessels. During Council discussion, the Council recognized the need to consider the tracking and monitoring of catch, particularly of overfished species, when reopening the fisheries.

In 2008, a maximized retention and monitoring program was managed under federally managed exempted fishing permits (EFP). Most vessels in the shore-based sector operated under EFPs which allowed the sorting of groundfish catch to be delayed and catch in excess of cumulative trip limits and prohibited species catch retained until offloading. Retaining unsorted catch is otherwise prohibited by regulations at 50 CFR 660.306(a)(10) and 50 CFR 660.306(a)(2). EFPs were also issued to approximately 15 first receivers to allow first receivers to possess more than a single cumulative limit of a particular species, per vessel, per applicable cumulative limit period. The possession of catch in excess of the cumulative limits is otherwise prohibited by regulations at 50 CFR 660.306(a)(10).

Any vessel fishing under an EFP, has been required to have and use an electronic monitoring system (EMS). The EMS is a video monitoring system that allows for the integrity of maximized catch retention requirements to be maintained. First receiver's that accept unsorted Pacific whiting catch from vessels fishing under an EFP have been required to procure the service of a NMFS certified catch monitor to oversee the sorting, weighing, and recordkeeping process, as well as to gather information on incidentally caught salmon. Catch monitors are necessary to verify the accuracy of electronic fish ticket data used to manage the Pacific whiting shorebased fishery such that inaccurate or delayed information does not result in any fishery specifications (bycatch limits, species allocations, OYs, and biological opinion thresholds) being exceeded.

Because of the need for accurate monitoring of bycatch limits to provide the data NMFS needs to monitor the fishery and close in time to keep within the bycatch limits, NMFS has determined that adequate time is needed to hire, train and deploy catch monitors. In addition, time is needed to hire and train observers for the catcher/processor and mothership sectors, to reissue EFPs and to conduct onsite inspections of new first receivers. NMFS has determined that the earliest date that the fisheries can be reopened with adequate monitoring is October 12,

2008. Therefore, this notice announces: the reopening of the fishery at 0001 hours on October 12, 2008; an increase in the bycatch limit for widow to 287 mt effective on October 12, 2008; an increase in the canary rockfish bycatch limit to 6.4 mt on October 12, 2008; and an increase in the canary rockfish bycatch limit to 6.7 effective October 26, 2008.

Limited Entry Bottom Trawl North of 40°10.00' North Latitude

Updated catch projections based on landing data through August 30, 2008, indicate that the catch of several target species north of 40°10.00' north latitude are lower than previously projected. Because trawl opportunity in the north has been severely constrained by measures to rebuild overfished species, the Council indicated that there was a need to allow the fishers an opportunity to fish. Because catch projections early in the year use historical data to project effort, they are revised as the fishing year progresses and current year data becomes available. When compared to projections available at the Council's June 2008 meeting, the catch of several target species, including Dover sole, arrowtooth flounder, petrale sole and other flatfish was lower than expected.

Because the catch of target species and overfished species has been lower than expected, the Council considered liberalizing the RCA boundaries in the north and increasing target species trip limits. Two different approaches for modifying the RCA boundaries were considered. The first approach considered reopening the areas shoreward of the trawl RCA north of Cape Alava (48°10.00' north latitude) and between Cape Arago (43°20.83' north latitude) and Humbug mountain (42°40.50' north latitude) to 60–fm (110–m) beginning October 1 (or as early as possible) through the end of the year. The second approach considered the possibility of shifting the shoreward boundary of the RCA in the north to 75–fm (137–m) while leaving the area north of Cape Alava and the area between Cape Arago and Humbug mountain closed beginning October 1 (or as early as possible) through the end of the year. After consideration of the availability of canary rockfish and the bycatch implications of the different approaches, the Council recommended that the shoreward boundary of the trawl RCA be moved from 60–fm (110 m) to 75–fm (137 m) in areas north of 40°deg;10.00' north latitude as early as possible, but the areas north of Cape Alava and between Cape Arago and Humbug mountain remain closed. The Council identified concerns about the incidental

canary rockfish catch relative to the limited benefit of opening closed areas north of Cape Alava and between Cape Arago and Humbug mountain. The Council also recommended increasing the petrale sole limit in the north for vessels using large and small footrope trawl gear from 30,000 lbs (13.6 mt) per two months to 45,000 lbs (20.41 mt) per two months in period 6, and increasing Dover sole in the north for vessels using large and small footrope trawl gear from 80,000 lbs (36.3 mt) per two months to 90,000 lbs (40.8 mt) per two months in period 6.

Limited Entry Trawl South of 40°deg;10.00' North Latitude

The Council considered increasing the petrale sole, Dover sole, and chilipepper rockfish trip limits in the area south of 40°10.00' north latitude. West Coast Groundfish Observer program data, provided by the NMFS Northwest Fishery Science Center, identified a larger than expected chilipepper rockfish discard rate for small footrope trawl gear in the area south of 40°10.00' north latitude. Rates were particularly high in the areas shoreward of the RCA. Because chilipepper rockfish co-occur with bocaccio and to a lesser degree with cowcod, targeting of chilipepper rockfish has been constrained. Industry participants requested that the Council consider increasing the small footrope trawl gear trip limit to allow the landing of incidentally caught chilipepper rockfish. After consideration of the potential impacts on bocaccio and cowcod projected to result from a modest increase in the trip limit, the Council recommended increasing the chilipepper rockfish limit for small footrope trawl gear in the south from 2,000 lbs (0.9 mt) per two months to 5,000 lbs (2.3 mt) per two months in period 6.

Because the catch of several target species and overfished species has been lower than expected, the Council considered increasing trip limits for petrale sole and Dover sole. The Council recommended increasing petrale sole south of 40°10.00' north latitude from 50,000 lbs (22.6 mt) per two months to 65,000 lbs (29.5 mt) per two months in period 6, and increasing the Dover sole from 80,000 lbs (36.3 mt) per two months to 90,000 lbs (40.8 mt) per two months in period 6.

Limited Entry Fixed Gear North of 36° North Latitude

The Council recommended increasing the daily limit in the limited entry fixed gear sablefish daily trip limit (DTL) fishery north of 36° north latitude in

June from 300–lbs (0.14–mt) per day to 500–lbs (0.23–mt) per day, which became effective August 1. Though limited, data indicates that catch in the DTL fishery is less than the allocation, and has been substantially less than the allocation in recent years. Using historical participation and catch information, the potential increase in the weekly and bimonthly limit for period 6 was evaluated. Because the catches would remain within the limited entry DTL allocation if the 2-month DTL limit were raised from 5,000–lbs (2.3–mt) to 6,500–lbs (2.9–mt) in period 6, the Council recommended raising the DTL limit north of 36 north latitude. The higher limit is expected to increase fishing opportunity without exceeding the allocation. The Council also recommended raising the corresponding weekly limit from 1,000 lb (0.5 mt) per week to 1,500 lb (0.7 mt) per week in period 6.

Open Access South of 34°27' North Latitude

The Council considered an increase in the shelf rockfish trip limits south of Point Conception (34°27' north latitude) from 750–lb (0.3–mt) 2 months to 1,000–lb (0.5–mt) 2 months because fishing effort has been lower than projected. Data through June 30, 2008, indicates that the shelf rockfish landings are approximately 25 percent lower than in previous years and well below the OY. Higher fuel costs and vessel monitoring system requirements may have contributed to the reduction in effort.

In recent years, shelf rockfish trip limits have been substantially reduced over historical levels to reduce the catch of overfished species found on the continental shelf. A variety of information was examined to understand potential impacts of increasing shelf rockfish trip limits. Observer data south of Point Conception indicated low overfished species bycatch, however only limited data were available. An analysis prepared by California Department of Fish and Game (CDFG) indicated that the proposed trip limits change is likely to result in a 6.1 percent increase in the projected catch of shelf rockfish and would not be expected to result in the bocaccio or widow rockfish OYs being exceeded. The Council considered potential effort shifts as a result of higher trip limits south of Point Conception, but did not find evidence that the modest increase would create an economic incentive that is likely to result in an effort shift from the north. After public comment and discussion, the Council recommended increasing the shelf rockfish trip limit

south of 34°27' north latitude to 1,000–lbs (0.5–mt) per two months in period 6.

California Recreational Fishery

Data available through August 10, 2008, indicated that the California harvest guideline for yelloweye rockfish was projected to be exceeded, therefore, CDFG took action to close the recreational fishery in the North and North Central Regions on September 2, 2008. As a result of the recreational closure, the California recreational fishery is projected to stay within their harvest guidelines for overfished species. CDFG requested and the Council recommended that NMFS Take conforming federal action to close the California recreational fishery in the North and North Central Management Area north of Point Arena.

Classification

These actions are taken under the authority of 50 CFR 660.370(c) and are exempt from review under Executive Order 12866.

These actions are authorized by the Pacific Coast groundfish FMP and its implementing regulations, and are based on the most recent data available. The aggregate data, upon which these actions are based, are available for public inspection at the Office of the Administrator, Northwest Region, NMFS, (see **ADDRESSES**) during business hours.

For the following reasons, NMFS finds good cause to waive prior public notice and comment on the revisions to the 2008 groundfish management measures under 5 U.S.C. 553(b)(B) because notice and comment would be impracticable and contrary to the public interest. Also for the same reasons, NMFS finds good cause to waive part of the 30 day delay in effectiveness pursuant to 5 U.S.C. 553(d)(1) and 5 U.S.C. 553(d)(3).

The data upon which these recommendations were based was provided to the Council and the Council made its recommendations at its September 8–12, 2008, meeting in Boise, Idaho. There was not sufficient time after that meeting to draft this notice and undergo proposed and final rulemaking before these actions need to be in effect. For the actions to be implemented in this notice, affording the time necessary for prior notice and opportunity for public comment would be impractical and contrary to the public interest because it would prevent the Agency from managing fisheries using the best available science to approach without exceeding the OYs for Federally managed species. The

inseason adjustments to management measures in this document affect commercial groundfish fisheries off Washington, Oregon, and California.

Changes to the non-tribal whiting canary rockfish bycatch limit must be implemented and the non-tribal fishery must be reopened as soon as possible, to relieve a restriction and allow fishermen the opportunity to harvest the remainder of the 2008 Pacific whiting OY. It would be contrary to the public interest to wait to implement these changes until after public notice and comment. Reopening the fishery as quickly as possible would be beneficial to the fishery participants because the aggregations of whiting begin to move into deeper waters and disperse later in the year, and this movement may result in increased bycatch rates for non-whiting species, and; because late autumn weather is more dangerous for smaller vessels. Taking the time to do provide notice and comment would eliminate the opportunity for many if not all vessels to participate in the fishery. The whiting fishery contributes a large amount of revenue to the coastal communities of Washington and Oregon. Leaving 101,694–mt (43.7 percent) of the whiting OY unharvested would sacrifice millions of dollars and hundreds of jobs for fishermen and coastal communities.

Projected effects of reopening the nontribal whiting fishery and increasing the non-tribal Pacific whiting widow and canary rockfish bycatch limits are within projected mortality for overfished species and other groundfish species. Failing to take these actions in a timely manner would result in unnecessary restriction of fisheries that are important to coastal communities and is therefore contrary to the public interest.

The adjustments to management measures in this document affect: limited entry commercial trawl and fixed gear fisheries off Washington, Oregon, and California and open access fisheries off California in the area south of 34°27' North latitude, and recreational fisheries off northern California. Adjustments to management measures must be implemented in a timely manner, by October 1, 2008, or as soon as possible afterward to allow: fishers an opportunity to harvest higher trip limits for species where the catch is tracking behind the projected catch levels for 2008; and to assure that recreational fishing in areas closed by CDFG or adjacent federal waters do not result in an overfished species OY being exceeded.

Changes to the cumulative limits in the limited entry trawl fishery, limited

entry fixed gear fishery and the open access fishery are needed to relieve a restriction by allowing fishermen increased opportunities to harvest available healthy stocks. Increased opportunities to harvest available healthy stocks while not exceeding the OYs for overfished species meets the objective of the Pacific Coast Groundfish FMP to allow fisheries to approach, but not exceed, OYs. It would be contrary to the public interest to wait to implement these changes until after public notice and comment, because making this regulatory change by October 1, or as soon as possible after, relieves a regulatory restriction for fisheries that are important to coastal communities. Without these inseason measures, there is an increased risk of causing economic harm to fishing communities. Delaying these changes would keep management measures in place that are not based on the best available science and would impair achievement of one of the Pacific Coast Groundfish FMP objectives of providing for year-round harvest opportunities or extending fishing opportunities as long as practicable during the fishing year.

List of Subjects in 50 CFR Part 660

Fisheries, Fishing, Indians.

Dated: October 6, 2008.

Emily H. Menashes,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

■ For the reasons set out in this preamble, 50 CFR part 660 is amended as follows:

PART 660—FISHERIES OFF WEST COAST STATES

■ 1. The authority citation for part 660 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*

■ 2. In § 660.373 paragraphs (b)(1)(iii) and (b)(4) are revised to read as follows:

§ 660.373 Pacific whiting (whiting) fishery management.

* * * * *

(b) * * *

(1) * * *

(iii) Primary whiting seasons. After the start of a primary season for a sector of the whiting fishery, the season remains open for that sector until the quota is taken or a bycatch limit is reached and the fishery season for that sector is closed by NMFS. The primary seasons for the whiting fishery are as follows:

(A) Catcher/processor sector - May 15 to August 19, 2008; reopening on October 12, 2008.

(B) Mothership sector - May 15 to August 19, 2008; reopening on October 12, 2008.

(C) Shore-based sector

(1) June 15 to August 19, 2008 and reopening on October 12, 2008 north of 42° N. lat.; April 1 to May 21, 2008, June 15 to August 19, 2008 and reopening on October 12, 2008 between 42°-40°30' N. lat.

(2) South of 40°30' N. lat. the primary season is April 15 to May 21, 2008, June 15 to August 19, 2008 and reopening on October 12, 2008.

* * * * *

(4) *Bycatch limits in the whiting fishery.* The bycatch limits for the whiting fishery may be used inseason to close a sector or sectors of the whiting fishery to achieve the rebuilding of an overfished or depleted stock, under routine management measure authority at § 660.370(c)(1)(ii). These limits are routine management measures under § 660.370(c) and, as such, may be adjusted inseason or may have new species added to the list of those with bycatch limits. The whiting fishery bycatch limits for the sectors identified in § 660.323(a) are: 6.4 mt of canary rockfish on October 12, 2008; 6.7 mt of canary rockfish on October 26, 2008;

287 mt of widow rockfish; and 40 mt of darkblotched rockfish.

* * * * *

■ 3. In § 660.384 paragraphs (c)(3)(i)(A)(1) and (2) are revised to read as follows:

§ 660.384 Recreational fishery management measures.

* * * * *

(c) * * *

(3) * * *

(i) * * *

(A) * * *

(1) Between 42° N. lat. (California/Oregon border) and 40°10.00' N. lat. (North Region), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20 fm (37 m) depth contour along the mainland coast and along islands and offshore seamounts from May 1 through October 13, 2008; and is closed entirely from January 1 through April 30, and October 14, 2008 through December 31, 2008 (i.e., prohibited seaward of the shoreline).

(2) Between 40°10' N. lat. and 37°11' N. lat. (North Central Region), recreational fishing for all groundfish (except "other flatfish" as specified in paragraph (c)(3)(iv) of this section) is prohibited seaward of the 20 fm (37 m) depth contour along the mainland coast and along islands and offshore seamounts from June 1 through October 13, 2008; and is closed entirely from January 1 through May 31, and October 14, 2008 through December 31, 2008 (i.e., prohibited seaward of the shoreline). Closures around the Farallon Islands (see paragraph (c)(3)(i)(C) of this section) and Cordell Banks (see paragraph (c)(3)(i)(D) of this section) also apply in this area.

* * * * *

■ 4. Tables 3 (North), 3 (South), 4 (North), 4 (South), and 5 (South) to part 660 subpart G are revised to read as follows:

Table 3 (North) to Part 660, Subpart G -- 2007-2008 Trip Limits for Limited Entry Trawl Gear North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

10/01/08

Order limits and requirements apply		Haul gear		Seine gear		Using this table		100/05	
		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC		
Rockfish Conservation Area (RCA)^{6/} :									
1	North of 48°10 00' N lat	shore - modified 200 fm ^{7/}	shore - 200 fm	shore - 150 fm				shore - modified 200 fm ^{7/}	
2	48°10 00' N lat - 46°38 17' N lat	75 fm - modified 200 fm ^{7/}	60 fm - 200 fm	60 fm - 150 fm			75 fm - 150 fm	75 fm - modified 200 fm ^{7/}	
3	46°38 17' N lat - 46°16 00 N lat		60 fm - 200 fm		60 fm - 150 fm				
4	46°16 00 N lat - 45°46 00' N lat		75 fm - 200 fm	75 fm - 150 fm		75 fm - 200 fm			
5	45°46 00' N lat - 43°20 83' N lat		75 fm - 200 fm						
6	43°20 83' N lat - 42°40 50' N lat	shore - modified 200 fm ^{7/}	shore - 200fm				shore - modified 200 fm ^{7/}		
7	42°40 50' N lat -40°10 00' N lat	75 fm - modified 200 fm ^{7/}	75 fm - 200 fm	60 fm - 200 fm			75 fm - 200 fm	75 fm - modified 200 fm ^{7/}	

Selective flatfish trawl gear is required shoreward of the RCA, all trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear is prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season.

See § 660.370 and § 660.381 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).

State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California

8	Minor slope rockfish ^{2/} & Darkblotched rockfish	1,500 lb/ 2 months			
9	Pacific ocean perch	1,500 lb/ 2 months			
10	DTS complex				
11	Sablefish				
12	large & small footrope gear	14,000 lb/ 2 months	19,000 lb/ 2 months	24,000 lb/ 2 months	19,000 lb/ 2 months
13	selective flatfish trawl gear	5,000 lb/ 2 months		7,000 lb/ 2 months	
14	multiple bottom trawl gear ^{8/}	5,000 lb/ 2 months		7,000 lb/ 2 months	
15	Longspine thornyhead				
16	large & small footrope gear	25,000 lb/ 2 months			
17	selective flatfish trawl gear	3,000 lb/ 2 months			
18	multiple bottom trawl gear ^{8/}	3,000 lb/ 2 months			
19	Shortspine thornyhead				
20	large & small footrope gear	12,000 lb/ 2 months	25,000 lb/ 2 months		
21	selective flatfish trawl gear	3,000 lb/ 2 months			
22	multiple bottom trawl gear ^{8/}	3,000 lb/ 2 months			
23	Dover sole				
24	large & small footrope gear	80,000 lb/ 2 months			90,000 lb/ 2 months
25	selective flatfish trawl gear	40,000 lb/ 2 months	50,000 lb/ 2 months	40,000 lb/ 2 months	50,000 lb/ 2 months
26	multiple bottom trawl gear ^{8/}	40,000 lb/ 2 months	50,000 lb/ 2 months	40,000 lb/ 2 months	50,000 lb/ 2 months

TABLE 3 (North)

Table 3 (North) Continued

27	Whiting						
28	midwater trawl	Before the primary whiting season CLOSED -- During the primary season: mid-water trawl permitted in the RCA See §660.373 for season and trip limit details -- After the primary whiting season CLOSED					
29	large & small footrope gear	Before the primary whiting season 20,000 lb/trip -- During the primary season: 10,000 lb/trip -- After the primary whiting season 10,000 lb/trip					
30	Flatfish (except Dover sole)						
31	Arrowtooth flounder						
32	large & small footrope gear	150,000 lb/ 2 months					
33	selective flatfish trawl gear	10,000 lb/ 2 months					
34	multiple bottom trawl gear ^{8/}	10,000 lb/ 2 months					
35	Other flatfish ^{3/} , English sole, starry flounder, & Petrale sole						
36	large & small footrope gear for Other flatfish ^{3/} , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole	110,000 lb/ 2 months, no more than 20,000 lb/ 2 months of which may be petrale sole			110,000 lb/ 2 months
37	large & small footrope gear for Petrale sole	40,000 lb/ 2 months	40,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	40,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole			45,000 lb/ 2 months
38	selective flatfish trawl gear for Other flatfish ^{3/} , English sole, & starry flounder	70,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole	70,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	50,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole
39	selective flatfish trawl gear for Petrale sole	70,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole	70,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	50,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole
40	multiple bottom trawl gear ^{8/}	70,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole	70,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	50,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 18,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 16,000 lb/ 2 months of which may be petrale sole	80,000 lb/ 2 months, no more than 10,000 lb/ 2 months of which may be petrale sole
41	Minor shelf rockfish^{1/}, Shortbelly, Widow & Yelloweye rockfish						
42	midwater trawl for Widow rockfish	Before the primary whiting season CLOSED -- During primary whiting season: In trips of at least 10,000 lb of whiting, combined widow and yellowtail limit of 500 lb/ trip, cumulative widow limit of 1,500 lb/ month. Mid-water trawl permitted in the RCA See §660.373 for primary whiting season and trip limit details -- After the primary whiting season CLOSED					
43	large & small footrope gear	300 lb/ 2 months					
44	selective flatfish trawl gear	300 lb/ month	1,000 lb/ month, no more than 200 lb/ month of which may be yelloweye rockfish			300 lb/ month	
45	multiple bottom trawl gear ^{8/}	300 lb/ month	300 lb/ 2 months, no more than 200 lb/ month of which may be yelloweye rockfish			300 lb/ month	

TABLE 3 (North) cont

Table 3 (North) Continued

46	Canary rockfish	CLOSED		
47	large & small footrope gear	CLOSED		
48	selective flatfish trawl gear	100 lb/ month	300 lb/ month	100 lb/ month
49	multiple bottom trawl gear ^{8/}	CLOSED		
50	Yellowtail	Before the primary whiting season CLOSED – During primary whiting season In trips of at least 10,000 lb of whiting combined widow and yellowtail limit of 500 lb/ trip, cumulative yellowtail limit of 2,000 lb/ month Mid-water trawl permitted in the RCA See §660.373 for primary whiting season and trip limit details – After the primary whiting season CLOSED		
	midwater trawl			
51				
52	large & small footrope gear	300 lb/ 2 months		
53	selective flatfish trawl gear	2,000 lb/ 2 months		
54	multiple bottom trawl gear ^{8/}	300 lb/ 2 months		
	Minor nearshore rockfish & Black rockfish			
55				
56	large & small footrope gear	CLOSED		
57	selective flatfish trawl gear	300 lb/ month		
58	multiple bottom trawl gear ^{8/}	CLOSED		
59	Lingcod ^{4/}			
60	large & small footrope gear	1,200 lb/ 2 months	4,000 lb/ 2 months	
61	selective flatfish trawl gear		1,200 lb/ 2 months	
62	multiple bottom trawl gear ^{8/}			
63	Pacific cod	30,000 lb/ 2 months	70,000 lb/ 2 months	30,000 lb/ 2 months
64	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months
65	Other Fish ^{5/}	Not limited		

TABLE 3 (North) con't

1/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish

2/ Splitnose rockfish is included in the trip limits for minor slope rockfish

3/ "Other flatfish" are defined at § 660.302 and include butter sole, curfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole

4/ The minimum size limit for lingcod is 24 inches (61 cm) total length

5/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling

Cabezon is included in the trip limits for "other fish"

6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394

7/ The "modified 200 fm" line is modified to exclude certain petrale sole areas from the RCA

8/ If a vessel has both selective flatfish gear and large or small footrope gear on board during a cumulative limit period (either simultaneously or successively), the most restrictive cumulative limit for any gear on board during the cumulative limit period applies for the entire cumulative limit period

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 3 (South) to Part 660, Subpart G -- 2007-2008 Trip Limits for Limited Entry Trawl Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

10/01/08

TABLE 3 (South)

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA) ^{6/} :							
1	South of 40°10' N lat.	100 fm - 150 fm ^{7/}					
All trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear is prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season.							
See § 660.370 and § 660.381 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
2	Minor slope rockfish ^{2/} & Darkblotched rockfish						
3	40°10' - 38° N lat	15,000 lb/ 2 months					
4	South of 38° N lat	55,000 lb/ 2 months					
5	Splitnose						
6	40°10' - 38° N lat	15,000 lb/ 2 months			10,000 lb/ 2 months		15,000 lb/ 2 months
7	South of 38° N lat	40,000 lb/ 2 months					
8	DTS complex						
9	Sablefish	14,000 lb/ 2 months		19,000 lb/ 2 months	24,000 lb/ 2 months		19,000 lb/ 2 months
10	Longspine thornyhead	25,000 lb/ 2 months					
11	Shortspine thornyhead	12,000 lb/ 2 months		25,000 lb/ 2 months			
12	Dover sole	80,000 lb/ 2 months					90,000 lb/ 2 months
13	Flatfish (except Dover sole)						
14	Other flatfish ^{3/} , English sole, & starry flounder	110,000 lb/ 2 months	110,000 lb/ 2 months, no more than 30,000 lb/ 2 months of which may be petrale sole				110,000 lb/ 2 months
15	Petrale sole	50,000 lb/ 2 months					65,000 lb/ 2 months
16	Arrowtooth flounder	10,000 lb/ 2 months					
17	Whiting						
18	midwater trawl	Before the primary whiting season. CLOSED -- During the primary season, mid-water trawl permitted in the RCA. See §660.373 for season and trip limit details. -- After the primary whiting season. CLOSED.					
19	large & small footrope gear	Before the primary whiting season. 20,000 lb/trip -- During the primary season, 10,000 lb/trip -- After the primary whiting season. 10,000 lb/trip.					

TABLE 3 (South)

Table 3 (South) Continued

20	Minor shelf rockfish ^{1/} , Chilipepper, Shortbelly, Widow, & Yelloweye rockfish			
21	large footrope or midwater trawl for Minor shelf rockfish & Shortbelly	300 lb/ month		
22	large footrope or midwater trawl for Chilipepper	2,000 lb/ 2 months	12,000 lb/ 2 months	8,000 lb/ 2 months
23	large footrope or midwater trawl for Widow & Yelloweye	CLOSED		
24	small footrope trawl for Minor Shelf, Shortbelly, Widow & Yelloweye	300 lb/ month		
25	small footrope trawl for Chilipepper	2,000 lb/ 2 months		5,000 lb/ 2 months
26	Bocaccio			
27	large footrope or midwater trawl	300 lb/ 2 months		
28	small footrope trawl	CLOSED		
29	Canary rockfish			
30	large footrope or midwater trawl	CLOSED		
31	small footrope trawl	100 lb/ month	300 lb/ month	100 lb/ month
32	Cowcod	CLOSED		
33	Minor nearshore rockfish & Black rockfish			
34	large footrope or midwater trawl	CLOSED		
35	small footrope trawl	300 lb/ month		
36	Lingcod ^{4/}			
37	large footrope or midwater trawl	1,200 lb/ 2 months	4,000 lb/ 2 months	
38	small footrope trawl		1,200 lb/ 2 months	
39	Pacific cod	30,000 lb/ 2 months	70,000 lb/ 2 months	30,000 lb/ 2 months
40	Spiny dogfish	200,000 lb/ 2 months	150,000 lb/ 2 months	100,000 lb/ 2 months
41	Other Fish ^{5/} & Cabezon	Not limited		

TABLE 3 (South) cont'

TABLE 3 (South) cont

1/ Yellowtail is included in the trip limits for minor shelf rockfish

2/ POP is included in the trip limits for minor slope rockfish

3/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole

4/ The minimum size limit for lingcod is 24 inches (61 cm) total length

5/ Other fish are defined at § 660.302 and include sharks, skates, ratfish, monds, grenadiers, and kelp greenling

6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours

but specifically defined by lat/long coordinates set out at §§ 660.391-660.394

7/ South of 34°27' N lat., the RCA is 100 fm - 150 fm along the mainland coast, shoreline - 150 fm around islands

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 4 (North) to Part 660, Subpart G -- 2007-2008 Trip Limits for Limited Entry Fixed Gear North of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

10/01/08

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	
Rockfish Conservation Area (RCA)^{6/}:							
1 North of 46°16' N. lat.	shoreline - 100 fm						
2 46°16' N lat. - 40°10' N. lat	30 fm - 100 fm						
See § 660.370 and § 660.382 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
3 Minor slope rockfish ^{2/} & Darkblotched rockfish	4,000 lb/ 2 months						
4 Pacific ocean perch	1,800 lb/ 2 months						
5 Sablefish	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months		500 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months		500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 6,500 lb/ 2 months		
6 Longspine thornyhead	10,000 lb/ 2 months						
7 Shortspine thornyhead	2,000 lb/ 2 months						
8 Dover sole	5,000 lb/ month South of 42° N lat , when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.						
9 Arrowtooth flounder							
10 Petrale sole							
11 English sole							
12 Starry flounder							
13 Other flatfish ^{1/}							
14 Whiting	10,000 lb/ trip						
15 Minor shelf rockfish ^{2/} , Shortbelly, Widow, & Yellowtail rockfish	200 lb/ month						
16 Canary rockfish	CLOSED						
17 Yelloweye rockfish	CLOSED						
18 Minor nearshore rockfish & Black rockfish	5,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}						
19 North of 42° N. lat.							
20 42° - 40°10' N. lat.	6,000 lb/ 2 months, no more than 1,200 lb of which may be species other than black or blue rockfish ^{3/}						
21 Lingcod ^{4/}	CLOSED		800 lb/ 2 months			400 lb/ month	CLOSED
22 Pacific cod	1,000 lb/ 2 months						
23 Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months		100,000 lb/ 2 months		
24 Other fish ^{5/}	Not limited						

TABLE 4 (North)

TABLE 4 (North)

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

2/ Bocaccio, chilipepper and cowcod are included in the trip limits for minor shelf rockfish and splinose rockfish is included in the trip limits for minor slope rockfish.

3/ For black rockfish north of Cape Alava (48°09.50' N. lat.), and between Destruction Is. (47°40' N. lat.) and Leadbetter Pnt. (46°38.17' N. lat.), there is an additional limit of 100 lb or 30 percent by weight of all fish on board, whichever is greater, per vessel, per fishing trip.

4/ The minimum size limit for lingcod is 22 inches (56 cm) total length North of 42° N. lat. and 24 inches (61 cm) total length south of 42° N. lat.

5/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, morids, grenadiers, and kelp greenling. Cabezon is included in the trip limits for "other fish."

6/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 4 (South) to Part 660, Subpart G -- 2007-2008 Trip Limits for Limited Entry Fixed Gear South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

10/01/08

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)^{5/}:							
1	40°10' - 34°27' N lat	30 fm - 150 fm					
2	South of 34°27' N lat	60 fm - 150 fm (also applies around islands)					
See § 660.370 and § 660.382 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
3	Minor slope rockfish ^{2/} & Darkblotched rockfish	40,000 lb/ 2 months					
4	Splitnose	40,000 lb/ 2 months					
5	Sablefish						
6	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months	500 lb/ day, or 1 landing per week of up to 1,000 lb, not to exceed 5,000 lb/ 2 months		500 lb/ day, or 1 landing per week of up to 1,500 lb, not to exceed 6,500 lb/ 2 months		
7	South of 36° N. lat	350 lb/ day, or 1 landing per week of up to 1,050 lb					
8	Longspine thornyhead	10,000 lb / 2 months					
9	Shortspine thornyhead						
10	40°10' - 34°27' N. lat.	2,000 lb/ 2 months					
11	South of 34°27' N lat.	3,000 lb/ 2 months					
12	Dover sole	South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs.					
13	Arrowtooth flounder						
14	Petrale sole						
15	English sole						
16	Starry flounder						
17	Other flatfish ^{1/}						
18	Whiting	10,000 lb/ trip					
19	Minor shelf rockfish ^{2/} , Shortbelly, Widow rockfish, and Bocaccio (including Chilipepper between 40°10' - 34°27' N. lat.)						
20	40°10' - 34°27' N lat	Minor shelf rockfish, shortbelly, widow rockfish, bocaccio & chilipepper: 2,500 lb/ 2 months, of which no more than 500 lb/ 2 months may be any species other than chilipepper.					
21	South of 34°27' N lat.	3,000 lb/ 2 months	CLOSED	3,000 lb/ 2 months			
22	Chilipepper rockfish						
23	40°10' - 34°27' N. lat	Chilipepper included under minor shelf rockfish, shortbelly, widow and bocaccio limits -- See above					
24	South of 34°27' N. lat.	2,000 lb/ 2 months, this opportunity only available seaward of the nontrawl RCA					
25	Canary rockfish	CLOSED					
26	Yelloweye rockfish	CLOSED					
27	Cowcod	CLOSED					
28	Bocaccio						
29	40°10' - 34°27' N. lat	Bocaccio included under Minor shelf rockfish, shortbelly, widow & chilipepper limits -- See above					
30	South of 34°27' N. lat.	300 lb/ 2 months	CLOSED	300 lb/ 2 months			

TABLE 4 (South)

TABLE 4 (South)

Table 4 (South). Continued

31	Minor nearshore rockfish & Black rockfish							
32	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months	600 lb/ 2 months	
33	Deeper nearshore							
34	40°10' - 34°27' N. lat	700 lb/ 2 months	CLOSED	700 lb/ 2 months		600 lb/ 2 months	700 lb/ 2 months	
35	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months				
36	California scorpionfish	600 lb/ 2 months	CLOSED	600 lb/ 2 months	800 lb/ 2 months		600 lb/ 2 months	
37	Lingcod ^{3/}	CLOSED		800 lb/ 2 months			400 lb/ month	CLOSED
38	Pacific cod	1,000 lb/ 2 months						
39	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months			
40	Other fish ^{4/} & Cabezon	Not limited						

TABLE 4 (South)

TABLE 4 (South)

1/ "Other flatfish" are defined at § 660.302 and include butter sole, curfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

2/ POP is included in the trip limits for minor slope rockfish. Yellowtail is included in the trip limits for minor shelf rockfish.

3/ The minimum size limit for lingcod is 24 inches (61 cm) total length

4/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, monds, grenadiers, and kelp greenling.

5/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394, except that the 20-fm depth contour off California is defined by the depth contour and not coordinates

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Table 5 (South) to Part 660, Subpart G -- 2007-2008 Trip Limits for Open Access Gears South of 40°10' N. Lat.

Other Limits and Requirements Apply -- Read § 660.301 - § 660.399 before using this table

10/01/08

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA) ^{5/} :							
1	40°10' - 34°27' N. lat.	30 fm - 150 fm					
2	South of 34°27' N. lat.	60 fm - 150 fm (also applies around islands)					
See § 660.370 and § 660.383 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.390-660.394 and §§ 660.396-660.399 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).							
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.							
3	Minor slope rockfish ^{1/} & Darkblotched rockfish						
4	40°10' - 38° N. lat.	Per trip, no more than 25% of weight of the sablefish landed					
5	South of 38° N. lat.	10,000 lb/ 2 months					
6	Splitnose	200 lb/ month					
7	Sablefish						
8	40°10' - 36° N. lat.	300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,400 lb/ 2 months		300 lb/ day, or 1 landing per week of up to 800 lb, not to exceed 2,200 lb/ 2 months			
9	South of 36° N. lat.	300 lb/ day, or 1 landing per week of up to 700 lb			300 lb/ day, or 1 landing per week of up to 700 lb, not to exceed 1,000 lb/ 1 month	300 lb/ day, or 1 landing per week of up to 700 lb, not to exceed 2,100 lb/ 2 months	
10	Thornyheads						
11	40°10' - 34°27' N. lat.	CLOSED					
12	South of 34°27' N. lat.	50 lb/ day, no more than 1,000 lb/ 2 months					
13	Dover sole	3,000 lb/month, no more than 300 lb of which may be species other than Pacific sanddabs South of 42° N. lat., when fishing for "other flatfish," vessels using hook-and-line gear with no more than 12 hooks per line, using hooks no larger than "Number 2" hooks, which measure 11 mm (0.44 inches) point to shank, and up to two 1 lb (0.45 kg) weights per line are not subject to the RCAs					
14	Arrowtooth flounder						
15	Petrale sole						
16	English sole						
17	Starry flounder						
18	Other flatfish ^{2/}						
19	Whiting	300 lb/ month					
20	Minor shelf rockfish ^{1/} , Shortbelly, Widow & Chilipepper rockfish						
21	40°10' - 34°27' N. lat.	300 lb/ 2 months	CLOSED	200 lb/ 2 months		300 lb/ 2 months	
22	South of 34°27' N. lat.	750 lb/ 2 months		750 lb/ 2 months			1,000 lb/ 2 months
23	Canary rockfish	CLOSED					
24	Yelloweye rockfish	CLOSED					
25	Cowcod	CLOSED					
26	Bocaccio						
27	40°10' - 34°27' N. lat.	200 lb/ 2 months	CLOSED	100 lb/ 2 months		200 lb/ 2 months	
28	South of 34°27' N. lat.	100 lb/ 2 months		100 lb/ 2 months			

TABLE 5 (South)

TABLE 5 (South)

Table 5 (South) Continued

29	Minor nearshore rockfish & Black rockfish							
30	Shallow nearshore	600 lb/ 2 months	CLOSED	800 lb/ 2 months	900 lb/ 2 months	800 lb/ 2 months	600 lb/ 2 months	
31	Deeper nearshore							
32	40°10' - 34°27' N. lat.	700 lb/ 2 months	CLOSED	700 lb/ 2 months		600 lb/ 2 months	700 lb/ 2 months	
33	South of 34°27' N. lat.	500 lb/ 2 months		600 lb/ 2 months				
34	California scorpionfish	600 lb/ 2 months	CLOSED	600 lb/ 2 months	800 lb/ 2 months		600 lb/ 2 months	
35	Lingcod ^{3/}	CLOSED		400 lb/ month				CLOSED
36	Pacific cod	1,000 lb/ 2 months						
37	Spiny dogfish	200,000 lb/ 2 months		150,000 lb/ 2 months	100,000 lb/ 2 months			
38	Other Fish ^{4/} & Cabezon	Not limited						
39	RIDGEBACK PRAWN AND, SOUTH OF 38°57.50' N. LAT., CA HALIBUT AND SEA CUCUMBER NON-GROUNDFISH TRAWL							
40	NON-GROUNDFISH TRAWL Rockfish Conservation Area (RCA) for CA Halibut, Sea Cucumber & Ridgeback Prawn:							
41	40°10' - 38° N. lat.	100 fm - modified 200 fm ^{6/}	100 fm - 150 fm				100 fm - modified 200 fm ^{6/}	
42	38° - 34°27' N. lat.	100 fm - 150 fm						
43	South of 34°27' N. lat.	100 fm - 150 fm along the mainland coast; shoreline - 150 fm around islands						
44		Groundfish: 300 lb/trip Trip limits in this table also apply and are counted toward the 300 lb groundfish per trip limit. The amount of groundfish landed may not exceed the amount of the target species landed, except that the amount of spiny dogfish landed may exceed the amount of target species landed. Spiny dogfish are limited by the 300 lb/trip overall groundfish limit. The daily trip limits for sablefish coastwide and thornyheads south of Pt. Conception and the overall groundfish "per trip" limit may not be multiplied by the number of days of the trip. Vessels participating in the California halibut fishery south of 38°57.50' N. lat. are allowed to (1) land up to 100 lb/day of groundfish without the ratio requirement, provided that at least one California halibut is landed and (2) land up to 3,000 lb/month of flatfish, no more than 300 lb of which may be species other than Pacific sanddabs, sand sole, starry flounder, rock sole, curlfin sole, or California scorpionfish (California scorpionfish is also subject to the trip limits and closures in line 31)						
45	PINK SHRIMP NON-GROUNDFISH TRAWL GEAR (not subject to RCAs)							
46	South	Effective April 1 - October 31: Groundfish: 500 lb/day, multiplied by the number of days of the trip, not to exceed 1,500 lb/trip. The following sublimits also apply and are counted toward the overall 500 lb/day and 1,500 lb/trip groundfish limits: lingcod 300 lb/ month (minimum 24 inch size limit); sablefish 2,000 lb/ month; canary, thornyheads and yelloweye rockfish are PROHIBITED All other groundfish species taken are managed under the overall 500 lb/day and 1,500 lb/trip groundfish limits Landings of these species count toward the per day and per trip groundfish limits and do not have species-specific limits. The amount of groundfish landed may not exceed the amount of pink shrimp landed.						

TABLE 5 (South) cont

TABLE 5 (South) cont

1/ Yellowtail rockfish is included in the trip limits for minor shelf rockfish and POP is included in the tnp limits for minor slope rockfish.

2/ "Other flatfish" are defined at § 660.302 and include butter sole, curlfin sole, flathead sole, Pacific sanddab, rex sole, rock sole, and sand sole.

3/ The size limit for lingcod is 24 inches (61 cm) total length.

4/ "Other fish" are defined at § 660.302 and include sharks, skates, ratfish, monds, grenadiers, and kelp greenling.

5/ The Rockfish Conservation Area is a gear and/or sector specific closed area generally described by depth contours but specifically defined by lat/long coordinates set out at §§ 660.391-660.394, except that the 20-fm depth contour off California is defined by the depth contour and not coordinates.

6/ The "modified 200 fm" line is modified to exclude certain petrale sole areas from the RCA.

To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.

Proposed Rules

Federal Register

Vol. 73, No. 199

Tuesday, October 14, 2008

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-0242; Directorate Identifier 2007-NE-51]

Airworthiness Directives; General Electric Company CF6-80C2 and CF6-80E1 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Proposed rule; withdrawal.

SUMMARY: This action withdraws a notice of proposed rulemaking (NPRM) that proposed a new airworthiness directive (AD), applicable to General Electric Company (GE) CF6-80C2 and CF6-80E1 series turbofan engines. That action would have required replacement of all clevis pins installed on the thrust reverser central drive units and upper and lower actuators, or replacement of pins that fail an on-wing rebound hardness test. Since we issued that NPRM, we determined there is no unsafe condition that warrants issuing an AD. The likelihood of this event occurring again and significantly damaging an aircraft is very low. Accordingly, we withdraw the proposed rule.

FOR FURTHER INFORMATION CONTACT:

Christopher Richards, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; *e-mail*: christopher.j.richards@faa.gov; *telephone*: (781) 238-7133, *fax*: (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to add a new airworthiness directive (AD), applicable to (GE) CF6-80C2 and CF6-80E1 series turbofan engines, was published in the **Federal Register** on February 25, 2008 (73 FR 9970). The proposed rule would have required replacement of all clevis pins installed

on the thrust reverser central drive units and upper and lower actuators, or replacement of pins that fail an on-wing rebound hardness test. That action results from failure of a thrust reverser during landing due to unapproved clevis pins being installed. The failure was due to lack of clevis pin hardness. The proposed actions were intended to prevent thrust reverser failure, which could lead to damage to the thrust reverser and airplane.

Since we issued that NPRM we have determined we don't need to issue an Airworthiness Directive to mandate an inspection. We have determined that the probability that inferior pin material is present in the fleet does not present sufficient risk to warrant an AD. However, operators and maintenance facilities should remain diligent in their normal maintenance practices to prevent installation of unapproved materials and to recognize when a clevis pin of inferior material is installed. We issued Safety Information Alert Bulletin No. NE-08-44, dated September 3, 2008, to aid in identifying and understanding the inferior clevis pin material.

Upon further consideration, we determined there is no unsafe condition that warrants issuing an AD. The likelihood of this event occurring again and significantly damaging an aircraft is very low. Accordingly, we withdraw the proposed rule.

Withdrawing this notice of proposed rulemaking constitutes only such action, and does not preclude us from issuing another notice in the future, nor does it commit us to any course of action in the future.

Since this action only withdraws a notice of proposed rulemaking, it is neither a proposed nor a final rule and therefore, is not covered under Executive Order 12866, the Regulatory Flexibility Act, or DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979).

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Withdrawal

Accordingly, the notice of proposed rulemaking, Docket No. FAA-2007-0242, published in the **Federal Register** on February 25, 2008 (73 FR 9970), is withdrawn.

Issued in Burlington, Massachusetts, on October 1, 2008.

Peter A. White,

Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. E8-24248 Filed 10-10-08; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF LABOR

Employee Benefits Security Administration

29 CFR Part 2550

RIN 1210-AB13

Investment Advice—Participants and Beneficiaries; Hearing

AGENCY: Employee Benefits Security Administration, U.S. Department of Labor.

ACTION: Proposed rule; Notice of hearing.

SUMMARY: Notice is hereby given that the Department of Labor will hold a hearing on the Department's proposed regulation under provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA, or the Act), and the Internal Revenue Code of 1986, as amended (Code), relating to the provision of investment advice to participants and beneficiaries of self-directed individual account plans and individual retirement accounts (IRAs).

DATES: The hearing will be held on October 21, 2008, beginning at 8 a.m., EST. Persons interested in presenting testimony and answering questions at the public hearing must submit requests and certain other information (as discussed below), by 3:30 p.m., EST, October 16, 2008.

ADDRESSES: The hearing will be held at the U.S. Department of Labor, Room S-3215 A&B, 200 Constitution Avenue, NW., Washington, DC 20210.

FOR FURTHER INFORMATION CONTACT: Fil Williams, Office of Regulations and Interpretations, Employee Benefits Security Administration, (202) 693-8510. This is not a toll-free number.

SUPPLEMENTARY INFORMATION:

On August 22, 2008 (73 FR 49896), the Department of Labor (the Department) published in the **Federal Register** a notice of proposed rulemaking to implement the provisions of the statutory exemption set forth in

sections 408(b)(14) and 408(g) of the Act, and parallel provisions of the Code, relating to the provision of investment advice described in the Act by a fiduciary adviser to participants and beneficiaries in participant-directed individual account plans, and beneficiaries of IRAs (and certain similar plans).

Also on August 22, 2008, notice was published in the **Federal Register** (73 FR 49924) that the Department has under consideration a proposed class exemption to permit the provision of investment advice to participants and beneficiaries of self-directed individual account plans, such as 401(k) plans, and IRAs. The Department proposed the class exemption on its own motion pursuant to section 408(a) of ERISA, and in accordance with the procedures set forth in 29 CFR Part 2570, subpart B (55 FR 32836, August 10, 1990).

Specifically, upon adoption, the proposed exemption would provide relief from the restrictions of section 406(a) and 406(b) of the Act, and from the taxes imposed by section 4975(a) and (b) of the Code, by reason of section 4975(c)(1) of the Code, for the provision of investment advice described in section 3(21)(A)(ii) of ERISA by a fiduciary adviser to a participant or beneficiary in an individual account plan or IRA (and certain similar plans), the acquisition, holding or sale of a security or other property pursuant to the investment advice, and the direct or indirect receipt of fees or other compensation by the fiduciary adviser (or any employee, agent, registered representative or affiliate thereof) in connection with such transactions.

Upon adoption, both the regulation and exemption would affect sponsors, fiduciaries, participants and beneficiaries of participant-directed individual account plans and IRAs, as well as providers of investment and investment advice-related services to such plans.

In the notice of proposed regulation and exemption, the Department invited all interested persons to submit written comments on or before October 6, 2008. To date, the Department has received approximately 39 written comments both the proposed regulation and class exemption, many of which were from major industry groups. All written comments are available to the public, without charge, online at www.dol.gov/ebsa and at the Public Disclosure Room N-1513, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

In their written comments, four parties requested that the Department

hold a public hearing to more fully examine issues raised under the proposed regulation and class exemption, and expressed an interest in testifying. In view of the importance of these initiatives and their potential for significantly affecting the provision of investment advice to participants and beneficiaries in affected plans, and taking into account the concerns of these commenters, the Department has decided to hold a public hearing. The primary purpose of this hearing is to further develop the public record regarding the regulation and to assist the Department in understanding the issues and other concerns raised by the written comments. Because information contained in previously-submitted written comments is already part of the public record, the Department expects that persons testifying at the hearing will present information not previously addressed in their written comments.

The hearing will be held on October 21, 2008, beginning at 8 a.m. and ending at 5 p.m., EST, in Room S-3215 A&B of the Department of Labor, Francis Perkins Building, at 200 Constitution Avenue, NW., Washington, DC 20210.

Persons interested in presenting testimony and answering questions at this public hearing must submit, by 3:30 p.m., EST, October 16, 2008, the following information: (1) A written request to be heard; and (2) An outline of the topics to be discussed, indicating the time allocated to each topic. To facilitate the receipt and processing of responses, EBSA encourages interested persons to submit their requests and outlines electronically by e-mail to e-ORI@dol.gov. Persons submitting requests and outlines electronically are encouraged not to submit paper copies.

Persons submitting requests and outlines on paper should send or deliver their requests and outlines (preferably at least three copies) to the Office of Regulations and Interpretations, Employee Benefits Security Administration, Attn: Investment Advice Hearing, Room N-5655, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210. All requests and outlines submitted to the Department will be available to the public, without charge, online at www.dol.gov/ebsa and at the Public Disclosure Room N-1513, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

The Department will prepare an agenda indicating the order of presentation of oral comments and testimony. In the absence of special circumstances, each presenter will be

allotted ten (10) minutes in which to complete his or her presentation.

Any individuals with disabilities who may need special accommodations should notify Fil Williams on or before October 16, 2008.

Information about the agenda will be posted on <http://www.dol.gov/ebsa> on or after October 16, 2008, or may be obtained by contacting Fil Williams, Office of Regulations and Interpretations, Employee Benefits Security Administration, U.S. Department of Labor, telephone (202) 693-8510 (this is not a toll-free number).

Those individuals who make oral comments and testimonies at the hearing should be prepared to answer questions regarding their information and/or comments. The hearing will be transcribed.

Notice of Public Hearing

Notice is hereby given that a public hearing will be held on October 21, 2008, concerning the Department's proposed regulation and class exemption for the provision of investment advice to participants and beneficiaries of self-directed individual account plans and IRAs. The hearing will be held beginning at 8 a.m. in Room S-3215 A&B of the U.S. Department of Labor, Francis Perkins Building, 200 Constitution Avenue, NW., Washington, DC 20210.

Signed at Washington, DC, this 8th day of October 2008.

Bradford P. Campbell,

Assistant Secretary, Employee Benefits Security Administration, U.S. Department of Labor.

[FR Doc. E8-24337 Filed 10-10-08; 8:45 am]

BILLING CODE 4510-29-P

LIBRARY OF CONGRESS

Copyright Office

37 CFR Part 201

[Docket No. RM 2008-9]

Fees

AGENCY: Copyright Office, Library of Congress.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice of proposed rulemaking is issued to inform the public that the Copyright Office of the Library of Congress is considering adoption of new fees for registration of claims, special services and Licensing Division services, and that the Office intends to submit a schedule of

proposed new statutory fees and fees for certain other services to Congress. The proposed fees would recover a significant part of the costs to the Office of registering claims and provide full cost recovery for many services provided by the Office which benefit only or primarily the user of that service. The new fees are based on reliable information regarding the costs of providing services, and reflect new electronic processing of most claims implemented in the Copyright Office in 2007.

DATES: Comments should be in writing and received on or before November 13, 20083.

ADDRESSES: If hand delivered by a private party, an original and ten copies of any comment should be brought to Room LM-401 of the James Madison Memorial Building between 8:30 a.m. and 5 p.m. and the envelope should be addressed as follows: Office of the General Counsel, U.S. Copyright Office, James Madison Memorial Building, Room LM-401, 101 Independence Avenue, SE., Washington, DC 20559-6000. If hand delivered by a commercial courier, an original and ten copies of any comment must be delivered to the Congressional Courier Acceptance Site located at Second and D Streets, NE., Washington, DC, between 8:30 a.m. and 4 p.m. The envelope should be addressed as follows: Office of the General Counsel, U.S. Copyright Office, LM 401, James Madison Building, 101 Independence Avenue, SE., Washington, DC. Please note that CCAS will not accept delivery by means of overnight delivery services such as Federal Express, United Parcel Service or DHL. If sent by mail (including overnight delivery using U.S. Postal Service Express Mail), an original and five copies should be addressed to U.S. Copyright Office, Copyright GC/I&R, P.O. Box 70400, Washington, DC 20024.

FOR FURTHER INFORMATION CONTACT: Tanya M. Sandros, General Counsel, or Kent Dunlap, Principal Legal Advisor for the General Counsel, *Telephone:* (202) 707-8380. *Telefax:* (202) 707-8366.

SUPPLEMENTARY INFORMATION: Section 708 of the copyright law establishes two separate procedures for adjusting fees for Copyright Office services to account for increases in costs. For fees for services specifically enumerated in section 708(a)(1)-(9), "statutory fees," the fees are adjusted according to the procedures set forth in section 708(b). This procedure includes the completion of a cost study, and the forwarding of an economic report and proposed fee schedule to Congress, which takes effect

unless Congress enacts a law within 120 days disapproving of the new fees. The second procedure concerns fees for services not specifically enumerated in section 708(a)(1)-(9), and for the purposes of this rulemaking, these fees are termed "discretionary fees." For these fees, section 708(a) authorizes the Register to set the fee at "the cost of providing the service." As with the statutory fees, the Copyright Office adjusts the discretionary fees after conducting a cost study to determine the cost of providing the service.

The Copyright Office has instituted fee adjustments under this provision on four separate occasions. The first schedule was adopted in 1999. *See* 63 FR 43426 (August 13, 1998) and 64 FR 29518 (June 1, 1999). Three years later a second adjustment was made raising many copyright fees, but leaving the basic registration fee at \$30. 67 FR 38003 (May 31, 2002). The third fee adjustment was adopted in 2006, in which most statutory fees were again raised due to an increase in costs. In this instance, the basic registration fee was increased from \$30 to \$45. 71 FR 15368 (March 28, 2006) and 71 FR 31089 (June 1, 2006). The last fee adjustment was adopted in 2007 establishing a lower basic registration fee of \$35 for copyright claims submitted electronically. 72 FR 33690 (June 19, 2007).

In the 2007 adjustment lowering the fee for electronic submission of basic copyright registration, it was stated that fee adjustment would likely be revisited once the electronic, online process for registering a claim was operational for a sufficient period of time so as to yield reliable information on the actual costs involved in providing the service. Electronic submission of basic claims to copyright was opened to beta testers in July 2007 with an increasing number of beta testers added over the next 11 months. Beginning July 1, 2008, the Office made online, electronic submission of copyright claims available to the general public, and it also introduced a new application, Form CO. The advantage of Form CO is its 2-D barcode that captures the information as entered online on the application form and from which the Copyright Office retrieves the information for processing.

The Office has gained experience in the past 15 months in using its new IT system for processing three different types of submissions of claims to copyright. Claims may be submitted electronically, by mailing a completed Form CO that incorporates a 2-D barcode, or by submitting existing paper forms, *i.e.*, Forms PA, VA, SR, TX or SE.

Each type of submission requires a significantly different degree of effort to process. Therefore, the Office is proposing a fee adjustment for each of these three types of submissions to recover the appropriate portion of the cost of providing such service.

I. Overview

The expenses of the Copyright Office have always been substantially funded through the fees for providing services, although the percentage of cost recovery has varied. For the last fifty years, cost recovery through the charging of fees has ranged from 50% to 80% of the expenses of the Copyright Office. In fiscal year 2005, the Copyright Office collected \$23,788,227 in fees, sufficient to offset 56.9% of the total expenditures of the Copyright Office. In fiscal year 2006, during the last three months of which higher fees applied, the Office collected \$24,126,884 in fees, sufficient to offset only 51.3% of the total expenditures of the Copyright Office. In fiscal year 2007, the Copyright Office collected \$29,261,052 in fees, offsetting 60.5% of the Copyright Office's total expenditures. Programs relating to mandatory deposit, domestic and international copyright policy and public information have been generally paid for by appropriated funds.

In order to meet the legal requirements for adjusting fees, the Copyright Office undertook a cost study to evaluate the cost of its fee services. Based upon that study, the Office proposes to adjust its fees to reflect the costs associated with the reengineered processes. The proposed new fees are being disclosed to the public at this time in order to provide an opportunity for public comment. The Copyright Office plans to implement the new fees on or about April 1, 2009.

II. Discretionary Fees

For services other than those mentioned in section 708(a)(1) through (9) identified as "other services" in the law, and identified in this notice as "Discretionary Fees," the Register is authorized to fix the fees at the actual cost of providing the service. The fees proposed here are based on a study of the costs of providing these services. Where costs have increased, the fees have been raised. In some cases the fees remain the same, or where costs have decreased, the fees have been lowered.

This notice will not discuss each fee increase individually where fees have been adjusted either to recover the cost of the service or to account for the rate of inflation since the last fee adjustment. However, the Copyright Office believes

further clarification is useful for the following fees:

1. *Recordation of an Interim Designation of Agent to Receive Notification of Claimed Infringement under § 512(c)(2) (Online Service Provider Designation)*. The Copyright Office has recorded and indexed designations of online service providers at a flat rate up to the present time. In practice, some of these documents are very simple while others include several or even many domain names that must be indexed in the Office's online record. To recover the extra cost associated with processing the larger number of domain names, the Office proposes a fee for the filing itself, with an additional fee for each group of 1 to 10 additional domain names.

2. *Service Charge for Uncollectible and Non-negotiable Checks*. Before the reengineering of Copyright Office processes, the Office did not register in-process claims and canceled completed registrations when an uncollectible check was returned from the bank. Under the new system, processing is merely suspended until the filer sends a valid payment. Returning non-negotiable checks and writing for replacements for failed payments is a direct cost to the Office. Modern businesses recover such costs by imposing a service charge, and the Office is adopting the same approach.

3. *Licensing Division Fees*. The Licensing Division of the Copyright Office provides services related to statements of account for cable, satellite, and DART usage. In this case, fees are set based on a separate study relating to the budget and expenditures of the Licensing Division. In addition, it charges fees for searching, certification and copying of licensing records. These services are similar to those performed by the Information and Records Division and the costs are also parallel. Consequently, fees are adjusted on the basis of the cost of providing the service regarding the filing of an Amended Statement of Account in accordance with Sections 111, 112, 114, 119, & 1003, Recordation of Licensing Agreement under Section 118; and search, certification, and copying fees.

4. *Refund Policy*. The Copyright Office intends to harmonize its refund policy with respect to refunds of fees for non-registration services, including document recordation and Licensing Division non-royalty fees. Heretofore, when a document that had been filed was not recorded, the entire fee was refunded. In the future, the Office will retain a portion of the fee to offset the administrative cost of processing the request to record the document. In this

case, under 37 CFR 201.6(c), the Office will retain a processing fee in an amount equivalent to the minimum fee set for the service, and will refund only the fees paid beyond that amount. With respect to the various Licensing Division fees, the regulation will be applied in the same manner.

III. Statutory Fees

The Copyright Office now offers two additional options for filing basic copyright claims beyond the traditional paper application: electronic filing via the Office's new "electronic Copyright Office" (eCo) and filing a new application Form CO filled out and printed from the Web site with the data encoded in 2-D barcodes.

In July 2006, the basic registration fee was increased to \$45. At that time, the Office established prospectively a lower fee of \$35 for filers who would use the electronic filing system still in development at that time. In July 2007, when the system became available to the public for beta testing, the lower fee was implemented. The cost study just completed validates the lower fee, demonstrating a substantial cost savings to the Office in processing electronic claims.

In its proposed schedule of fees, the Office has revised its registration schedule and presents a three tier system for basic registration fees to accommodate the addition of Form CO. On July 1, 2008, the Office implemented its new Form CO and 2-D barcode filing option on its Web site. The 2-D barcode captures the data entered into Form CO and, when scanned in the Office, populates the various fields with the digitized data, eliminating the need for any transcription. Users who complete the new Form CO on the Copyright Office Web site, print it from the Web site, and submit it with the fee and deposit copy or copies, will be charged a fee that is higher than the eCO filing fee, but lower than the fee for paper filings using old applications without the 2-D barcode. The fee level was determined from the cost study for processing applications by stripping out the known costs that would not be incurred in processing the Form CO claims. Review of the costs associated with implementation of Form CO has demonstrated that the deleted costs were in fact directly related to processing steps avoided in processing these claims.

The highest fee for submission of a claim for registration is reserved for filers who submit the traditional paper application forms. The higher fee reflects the level of manual intervention required to create the digitized

information, and other associated costs. In turn, these filers, like their counterparts, will receive a certificate created from the digital data drawn from a scanned image of the application.

In addition to the registration fees associated with basic copyright registration, fees have been adjusted in some of the other areas of copyright registration, as have other statutory fees. The Copyright Office believes further clarification is useful for the following fees:

1. *Supplementary Registration and Additional Certificate of Registration*.

These statutory fees are being adjusted downward. The cost of providing these services has declined over recent years due to automation of processing systems. In such circumstances, it is appropriate to pass these savings on to the customer.

2. *Group Registration for Database Updates, Group Registration for Published Photographs, and Group Registration for Contributions to Periodicals*. In the case of these three group registration options, the applicant files the traditional registration form, and in the case of published photographs, the use of an adjunct form listing the individual titles of the photographs. The fees for these groups are exactly the same as the fees for claims in individual works in these categories. A group submission reduces the Office's costs and is seen as a win-win for the Office and its customers. The fees for these groups will increase for paper filings, in concert with the fees for individual basic registrations. When group registration is available in the 2-D barcode and electronic filing options, the fees will parallel those for individual claims, as well.

3. *Making and Reporting of a Search*.

The fee for searching and preparing a report from Copyright Office records is adjusted for inflation to maintain the current level of cost recovery. The Office has determined, however, to apply a 2-hour minimum charge to searches performed by the Records Research & Certification Division. This step will bring the Office's charges more in line with the fees charged for this service by providers in the private sector and will make recovery fairly consistent with actual costs. The minimum fee for searches done by the Licensing Division remains at the current rate of a 1-hour minimum due to the limited scope of the typical search.

4. *Notice of Intention to Obtain a Compulsory License under Section 115(b)*. This fee has not been adjusted since 1978 and it has become both a windfall for filers who have only one

title in their notice and a burden for those notices with many titles. The Office intends to balance the fee so that it is fairer to users and better reflects the relative cost of processing the single-title versus multiple-title notices, by charging a fee for processing the notice itself, with an additional fee for each group of ten additional titles beyond the first. The proposed fee is based on the cost of providing this service and increases the basic filing fee, while reducing the cost per title when

multiple titles are included in the filing. This is the same approach the Office uses to set fees for the recordation of a document with additional titles and the recordation of an Interim Designation of Agent to Receive Notification of Claimed Infringement under § 512(c)(2). The Office anticipates adjusting its processes to accept electronic filings in the future, at which time, it will consider an adjustment to these fees to reflect the efficiencies and savings associated with electronic filings.

IV. Proposed New Statutory and Filing Fees

Based upon the cost study prepared by the Copyright Office, the Copyright Office is proposing a new fee schedule for registration and related services, special services, and Licensing Division services. A comparison of existing and new fees is included in the following charts:

	Current fees	Proposed fees
Registration, Recordation, and Related Services		
(1) Registration of a basic claim in an original work of authorship:		
Form CO (electronic filing)	\$35	\$35
Form CO (2-D barcode application completed online)	45	50
Forms PA, SR, TX, VA, SE (paper filing)	45	65
(2) Registration of a claim in a group of published photographs, database updates, or contributions to periodicals (Form GR/CP):		
Form CO (electronic filing, when available)	35	35
Form CO (2-D barcode application completed online, when available)	45	50
Forms PA, SR, TX, VA, SE (paper filing)	45	65
(3) Registration of a renewal claim (Form RE):		
Claim without Addendum	75	115
Addendum	220	245
(4) Registration of a claim in a mask work (Form MW)	95	105
(5) Registration of a claim in a group of serials (Form SE/Group) [per issue, with minimum 2 issues]	25	25
(6) Registration of a claim in a group of daily newspapers and qualified newsletters (Form G/DN)	70	80
(7) Registration of a claim in a restored copyright (Form GATT)	45	65
(8) Preregistration of certain unpublished works	100	115
(9) Registration of a correction or amplification to a claim (Form CA)	115	100
(10) Providing an additional certificate of registration	40	35
(11) Certification of other Copyright Office records (per hour)	150	165
(12) Search-report prepared from official records (per hour) [minimum 2 hours]	150	165
Estimate of search fee	100	115
(13) Location of Copyright Office records (per hour)	150	165
Location of in-process materials (per hour)	150	165
(14) Recordation of document, including a Notice of Intention to Enforce (NIE) (single title)	95	105
Additional titles (per group of 10 titles)	25	30
(15) Recordation of Notice of Intention to Make and Distribute Phonorecords (single title)	12	105
Additional titles (per group of 10 titles)	N/A	20
(16) Recordation of an Interim Designation of Agent to Receive Notification of Claimed Infringement under § 512(c)(2) (single name)	80	105
Additional domain names (per group of 10 names)	N/A	30
(17) Issuance of a receipt for a § 407 deposit	20	30
(18) Registration of a claim in a vessel hull (Form D/VH)	200	220
Special Services		
(1) Service charge for deposit account overdraft	150	165
Licensing Division Services		
(1) Recordation of a Notice of Intention to Make and	12	105

¹ New item; fee not currently listed in 37 CFR 201.3(d).

V. Request for Comments

The Copyright Office is publishing the proposed new fees and modification of the refund policy in order to provide the public with an opportunity to comment on the proposed adjustments. The Office anticipates implementation of the new fee schedule by April 1, 2009.

Dated: October 8, 2008.

Marybeth Peters,

Register of Copyrights.

[FR Doc. E8-24269 Filed 10-10-08; 8:45 am]

BILLING CODE 1410-30-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 228

[EPA-R10-OW-2008-0745; FRL-8728-6]

Ocean Dumping; Designation of Ocean Dredged Material Disposal Site Offshore of the Rogue River, OR

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is withdrawing an earlier proposal to designate an ocean dredged material disposal site near the mouth of the Rogue River, Oregon, and is re-proposing to designate an ocean dredged material disposal site located offshore of the Rogue River, Oregon. EPA's proposed rule was published at 56 FR 47173 (September 18, 1991). Changes since that time to the ocean dumping program, including changes to the Marine Protection, Research, and Sanctuaries Act, as amended (MPRSA), 33 U.S.C. 1401 to 1445, give rise to EPA's decision to re-propose the site designation to take into account the statutory changes since the original proposal and to incorporate new data about the site. The new site is needed primarily to serve the long-term need for a location to dispose of material dredged from the Rogue River navigation channel, and will also serve to provide a location for the disposal of dredged material for persons who have received a permit for such disposal. The newly designated site will be subject to ongoing monitoring and management to ensure continued protection of the marine environment.

DATES: Comments on this proposed rule must be received by November 13, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R10-OW-2008-0745 by one of the following methods:

- <http://www.regulations.gov>: Follow the on-line instructions for submitting comments.

- *E-mail:*

Freedman.Jonathan@epa.gov.

- *Mail:* Jonathan Freedman, U.S. Environmental Protection Agency, Region 10, Office of Ecosystems, Tribal and Public Affairs (ETPA-183), Aquatic Resources Unit, 1200 Sixth Avenue, Suite 900, Seattle, Washington 98101.

Instructions: Direct your comments to Docket ID No. EPA-R10-OW-2008-0745. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through the Web site, <http://www.regulations.gov>, or through e-mail. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through the Web site, <http://www.regulations.gov>, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters or any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: All documents in the docket are listed in the <http://www.regulations.gov> index.

Although listed in the index, some information may not be publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy during normal business hours at the U.S. Environmental Protection Agency, Region 10, Library, 10th Floor, 1200 Sixth Avenue, Suite 900, Seattle, Washington 98101. For access to the documents at the Region 10 Library, contact the Region 10 Library Reference Desk at (206) 553-1289, between the hours of 9 a.m. to 11:30 a.m., and between the hours of 1 p.m. to 4 p.m., Monday through Friday, excluding legal holidays, for an appointment.

FOR FURTHER INFORMATION CONTACT:

Jonathan Freedman, U.S. Environmental Protection Agency, Region 10, Office of Ecosystems, Tribal and Public Affairs (ETPA-183), Aquatic Resources Unit, 1200 Sixth Avenue, Suite 900, Seattle, Washington 98101, *phone number:* (206) 553-0266, *e-mail:* freedman.jonathan@epa.gov, or contact Jessica Winkler, U.S. Environmental Protection Agency, Region 10, Office of Ecosystems, Tribal and Public Affairs (ETPA-183), Aquatic Resources Unit, 1200 Sixth Avenue, Suite 900, Seattle, Washington 98101, *phone number:* (206) 553-7369, *e-mail:* winkler.jessica@epa.gov.

SUPPLEMENTARY INFORMATION:

1. Potentially Affected Persons

Persons potentially affected by this proposed action include those who seek or might seek permits or approval by EPA to dispose of dredged material into ocean waters pursuant to the Marine Protection, Research, and Sanctuaries Act, as amended (MPRSA), 33 U.S.C. 1401 to 1445. EPA's action would be relevant to persons, including organizations and government bodies, seeking to dispose of dredged material in ocean waters offshore of the Rogue River, Oregon. Currently, the U.S. Army Corps of Engineers (Corps) would be most impacted by this proposed action. Potentially affected categories and persons include:

Category	Examples of potentially regulated persons
Federal Government	U.S. Army Corps of Engineers Civil Works Projects, and other Federal Agencies.
Industry and General Public	Port Authorities, Marinas and Harbors, Shipyards and Marine Repair Facilities, Berth Owners.

Category	Examples of potentially regulated persons
State, local and tribal governments	Governments owning and/or responsible for ports, harbors, and/or berths; Government agencies requiring disposal of dredged material associated with public works projects.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding persons likely to be affected by this action. For any questions regarding the applicability of this action to a particular person, please refer to the contact person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

2. Background

a. History of Disposal Site Offshore of the Rogue River, Oregon

The proposed Rogue River ocean dredged material disposal site, or areas in the same vicinity, have been used by the Corps since approximately 1962. When the MPRSA was enacted, the site became an “interim” site under the ocean dumping regulations, a status superseded by later statutory changes to the MPRSA. The site currently exists as a site selected by the Corps under Section 103 of the MPRSA. EPA concurred on the selection of the site and, in 2003, approved the Corps’ request to continue to use the site

through the end of the 2008 dredging season. Site designation, pursuant to Section 102 of the MPRSA, is necessary for any use of the site to continue after 2008.

From 1986 through 2006, over 1.1 million cubic yards (cy) of dredged material were placed at the Rogue River site. A uniform placement strategy, rather than point dumping, has been applied to the disposal of material at the site and regular bathymetric surveys have shown that persistent mounding has not occurred within the site or in the vicinity of the site. Site capacity appears to be virtually unlimited. Data collected at the site and modeling indicate that material disposed at the site redistributes out of the site and is presumed to feed the littoral cell. Consequently, the site is a sound candidate location to propose for designation pursuant to Section 102 of the MPRSA.

b. Location and Configuration of Proposed Rogue River Ocean Dredged Material Disposal Site

Today, EPA withdraws the rule the Agency proposed on September 18, 1991, at 56 FR 47173 to designate a Rogue River site, and simultaneously proposes to designate the Rogue River ocean dredged material site at the coordinates listed below. The figure below shows the Rogue River ocean dredged material disposal site (Rogue River ODMDS or Site) EPA proposes to designate today. This configuration is expected to allow dredged material disposed in shallower portions of the site to naturally disperse into the littoral zone without creating mounding conditions that could contribute to adverse impacts to navigation. The proposed configuration will allow EPA to ensure that disposal of dredged material into the Site will be managed so that as much material as possible is retained in the active littoral drift area to augment shoreline building processes.

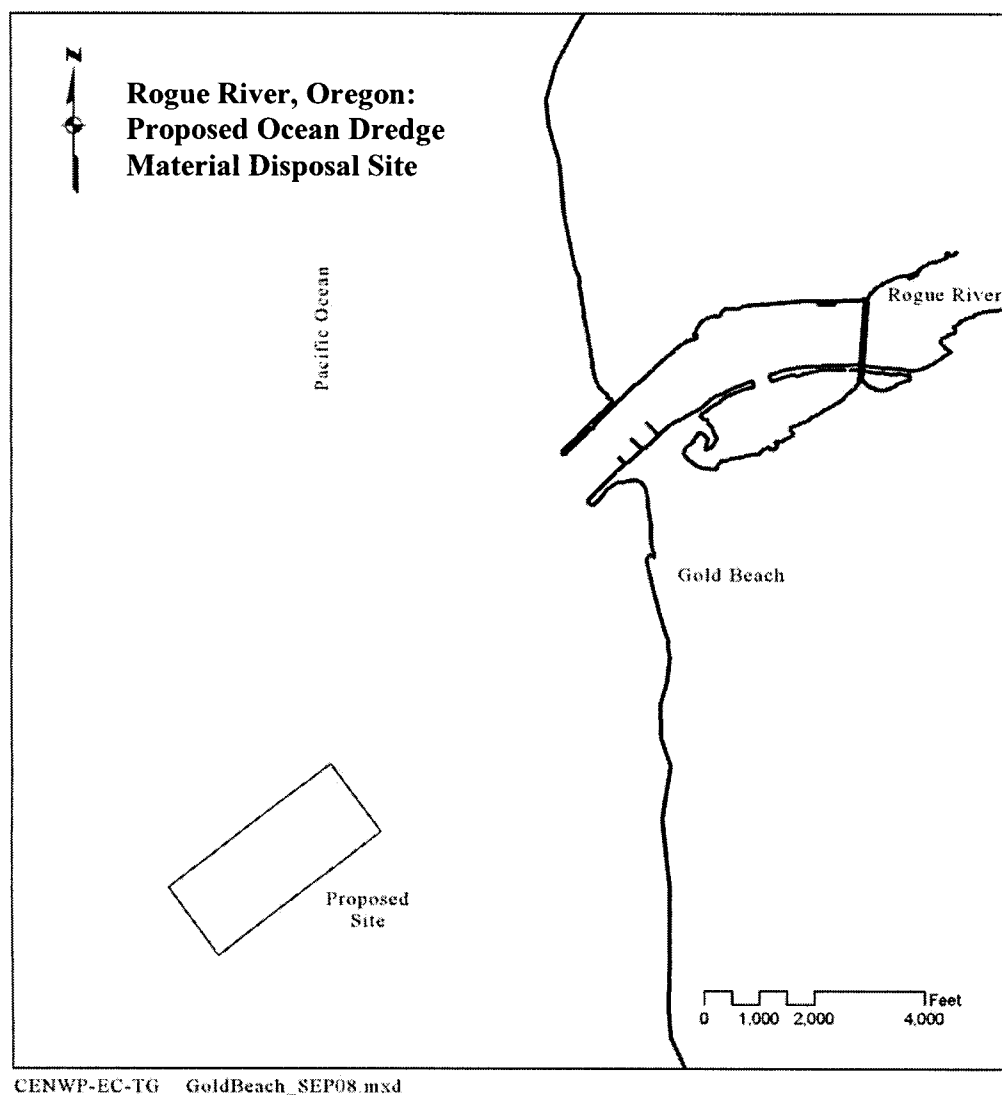


Figure 1 is a diagram of the Proposed Section 102 site.

The coordinates for the Rogue River ODMDS, as proposed today, are, in North American Datum 83 (NAD 83):

42°24'15.40" N	124°26'52.39" W
42°24'03.40" N	124°26'39.39" W
42°23'39.40" N	124°27'17.40" W
42°23'51.40" N	124°27'30.40" W

The Site is expected to occupy approximately 116 acres. The Site's dimensions, as proposed, are: 1,400-foot wide by 3,600-foot long, with Site depth ranging from approximately 50 to 90 feet. The Site generally lies on bottom contours sloping at a rate of 8/1000 feet to the west-southwest. The disposal area, placement area, and drop zone are identical. Limited onshore transport of material disposed of at the proposed Site is not expected because of the nature of the prevailing currents and wave transport in the vicinity of the Site. Net predicted material transport at

the proposed Site is southward in the summer months and northward during the remainder of the year. These transport mechanisms are expected to move material into the active littoral drift area.

c. Management and Monitoring of the Proposed Site

The proposed Rogue River ODMDS is expected to receive sediments dredged by the Corps to maintain the federally authorized navigation project at the Rogue River, Oregon and dredged material from other persons who have obtained a permit for the disposal of dredged material at the Site. The ocean dumping regulations do not require a modification of any existing permits. All persons using the Site are required to follow the Site Management and Monitoring Plan (SMMP) for the Rogue River ODMDS. The SMMP is available

as a draft document for review and comment by the public as of today's action proposing the Rogue River ODMDS designation. The draft SMMP includes management and monitoring requirements to ensure that dredged materials disposed at the Site are suitable for disposal and addresses the timing of disposal events to minimize interference with other uses of ocean waters in the vicinity of the proposed Site.

d. MPRSA Criteria

In proposing to designate the Rogue River ODMDS, EPA assessed the proposed action against the criteria of the MPRSA, with particular emphasis on the general and specific regulatory criteria of 40 CFR Part 228, to determine if the proposed site designation satisfies those criteria.

General Criteria (40 CFR 228.5)

(1) *Sites must be selected to minimize interference with other activities in the marine environment, particularly avoiding areas of existing fisheries or shellfisheries, and regions of heavy commercial or recreational navigation (40 CFR 228.5(a)).*

EPA's assessment of information available at the time of this proposed rule included a review of the potential for interference with navigation, recreation, shellfisheries, aquatic resources, commercial fisheries, protected geologic features, and cultural and/or historically significant areas. While limited overlap was found to exist between disposal operations and salmon fishing, no observable conflicts were identified. No evidence was found to suggest that the proposed Site would cause interference with fisheries or with navigation in the Rogue River navigation channel. The proposed Site has been used over the past decades for dredged material disposal, most recently pursuant to Section 103 of the MPRSA as a site selected by the Corps, with EPA's concurrence. Mariners in this area are accustomed to Site use.

(2) *Sites must be situated such that temporary perturbations to water quality or other environmental conditions during initial mixing caused by disposal operations would be reduced to normal ambient levels or undetectable contaminant concentrations or effects before reaching any beach, shoreline, marine sanctuary, or known geographically limited fishery or shellfishery (40 CFR 228.5(b)).*

Dredged material found suitable for disposal into ocean waters, as characterized by chemical and biological testing or as evaluated according to 40 CFR 227.13, will be the only material allowed to be disposed of at the proposed Site. Modeling work performed by the Corps demonstrates that water column turbidity would dissipate for an anticipated 97% of the coarser material within a few minutes of disposal, while the remaining 3% of the material, which would be classified as fine-grained, would dissipate within a half hour. Therefore, based on modeling, monitoring data, and history of use, no contaminant or water quality effects would be expected to reach any beach, shoreline, or other area outside of the proposed Site. Over time, some of the suitable disposed material would be expected to migrate into the littoral system, and potentially to coastal shorelines.

(3) *If Site designation studies show that any interim disposal sites do not meet the site selection criteria, use of*

such sites shall be terminated as soon as any alternate site can be designated (40 CFR 228.5(c)).

There are no interim disposal sites near the proposed Rogue River Site as defined under the Ocean Dumping regulations. The designation of the proposed Site is necessary because no location for the disposal of dredged material will exist in the vicinity of the proposed Site after the end of the 2008 dredge season.

(4) *The sizes of disposal sites will be limited in order to localize for identification and control any immediate adverse impacts, and to permit the implementation of effective monitoring and surveillance to prevent adverse long-range impacts. Size, configuration, and location are to be determined as part of the disposal site evaluation (40 CFR 228.5(d)).*

EPA sized the proposed Site to meet this criterion. The proposed Site tends to be moderately dispersive in the near-shore area and tends to be less dispersive farther from shore. The overall stability of the Site, as indicated by the lack of adverse mounding, is a significant component of the justification for the size of the Site. Data collected by the Corps through bathymetric monitoring show the spread and movement of material after placement. The data establish that material from the Site eventually disperses over the footprint of the site with seasonal movement into the littoral system. Effective monitoring of the proposed Site is anticipated based on past practice and current ability to monitor the location and conduct surveillance.

(5) *EPA will, wherever feasible, designate ocean dumping sites beyond the edge of the continental shelf and other such sites where historical disposal has occurred (40 CFR 228.5(e)).*

The proposed Site would be located where historic disposal has occurred with only minimal impact to the environment, and to other uses and amenities. Locations off the continental shelf in the Pacific ocean as a general rule are inhabited by stable benthic and pelagic ecosystems on steeper gradients that are not well adapted to frequent disturbance events such as would occur if disposal of dredged material took place. Monitoring and surveillance of a site located beyond the edge of the continental shelf would be challenging and would present safety concerns for crew transporting the material to be disposed. In addition, dredged material disposed at a location beyond the continental shelf would not be available to the littoral system. The loss of material would potentially have a

negative impact the mass balance of the system with a resulting negative impact on erosion/accretion patterns along this limited area of coastline near the Rogue River.

Specific Criteria (40 CFR 228.6)

(1) *Geographical Position, Depth of Water, Bottom Topography and Distance from Coast (40 CFR 228.6(a)(1)).*

Based on the data available at the time of this proposal, the geographical position, including the depth of the proposed Site, bottom topography, and distance from the coastline in the vicinity of the proposed Site, indicate that designation of the proposed Site will not cause adverse effects to the marine environment. Based on EPA's understanding of currents at the proposed Site and their influence on the movement of material in the area, there is a high likelihood that much of the material disposed at the Site will be transported to the littoral system. This movement is expected to allow for long-term disposal without creation of adverse mounding conditions.

(2) *Location in Relation to Breeding, Spawning, Nursery, Feeding, or Passage Areas of Living Resources in Adult or Juvenile Phases (40 CFR 228.6(a)(2)).*

The proposed Site is not located in exclusive breeding, spawning, nursery or feeding areas for adult or juvenile phases of living resources. Many nearshore pelagic organisms occur in the water column over the proposed Site but these organisms are found off most of the Pacific coast and are not unique to the proposed Site. Benthic fauna common to nearshore, sandy, wave-influenced regions that exist along the Pacific coast that are found at the proposed Site are generally well-suited to survive in this dynamic environment and have been found to adapt well to natural and human perturbations. Benthic communities are expected to rapidly recolonize in the event of burying after disposal. Near the proposed Site, a variety of pelagic and demersal fish species, as well as shellfish, are found. Anadromous salmonids are found at all seasons in the nearshore area off the mouth of the Rogue River. Seals and sea lions also inhabit the lower Rogue River and coastal area. Nesting areas offshore of the Rogue River entrance channel support a variety of avian species. Whales and sea turtles are present seasonally offshore of the coastline in this area, but are generally observed further offshore than the proposed site. No unique breeding, spawning, nursery, feeding, or passage habitat is located within the proposed Site or within its

immediate vicinity. Based on modeling of the water column, which indicates that turbidity would be expected to dissipate fairly rapidly, any avoidance behavior by any species at the proposed Site would be short-term.

(3) Location in Relation to Beaches and Other Amenity Areas (40 CFR 228.6(a)(3)).

The proposed Site, although located in close proximity to the Rogue River navigation channel, is located a sufficient distance offshore to avoid adverse impacts to beaches and other amenity areas. The local beaches support tourism, and recreational and commercial fishing. Transportation of dredges or barges to and from the proposed Site to dispose of dredged material is expected to be coordinated so as to avoid disturbance of other activities near the Rogue River entrance channel. Dredged material disposed of at the proposed Site is expected to disperse into the littoral system, with a possible positive effect over time of reducing erosion of coastal beaches.

(4) Types and Quantities of Wastes Proposed to be Disposed of, and Proposed Methods of Release, including Methods of Packing the Waste, if any (40 CFR 228.6(a)(4)).

Dredged material found suitable for disposal into ocean waters, as characterized by chemical and biological testing or as evaluated according to 40 CFR 227.13, will be the only material allowed to be disposed of at the proposed Site. No material defined as "waste" under the MPRSA will be allowed to be disposed of at the proposed Site. The dredged material expected to be disposed of at the Site will be predominantly marine sand, far removed from known sources of contamination. The physical and chemical analyses of material from the Rogue River Navigation Channel and boat basin indicated only two anomalies. The first is an elevated level of nickel relative to other river drainage basins along the Oregon coast. Since elevated nickel levels have been detected in Rogue River channel sediments historically, those levels are believed to reflect the ambient background for the Rogue River system. The second was an elevated level of phenol in one sample location. The sediments associated with the elevated phenol sample will not be dredged until further characterization can be completed and disposal of the material at the proposed Site will not take place unless and the material has been found to be suitable for unconfined ocean disposal.

With respect to proposed methods of releasing material at the proposed Site,

material will be released just below the surface from dredges while the dredges are under power and slowly transiting the proposed Site. This method of release is expected to spread material at the Site to minimize mounding and to minimize impacts to the benthic community and other species in the Site at the time of a disposal event.

(5) Feasibility of Surveillance and Monitoring (40 CFR 228.6(a)(5)).

Monitoring and surveillance at the proposed Site are expected to be feasible and easily performed from small surface research vessels. The proposed Site is accessible for bathymetric and side-scan sonar surveys. At a minimum, it is expected that annual bathymetric surveys will be conducted at the proposed Site to confirm that no unacceptable mounding is taking place within the Site or its immediate vicinity. Routine monitoring is expected to concentrate on examining how the distribution of material in the near-shore portions of the Site augment littoral processes and how distribution of material in the deeper portions of the Site avoid or minimize mounding.

(6) Dispersal, Horizontal Transport and Vertical Mixing Characteristics of the Area, Including Prevailing Current Direction and Velocity, if any (40 CFR 228.6(a)(6)).

Dispersal, horizontal transport and vertical mixing characteristics of the area at and in the vicinity of the proposed Site are complex. In part, this complexity is a result of rocky reefs to the north of the proposed Site which appear to influence mass transport, and in part the complexity can be attributed to prevailing wave-induced motion and currents moving towards the north during much of the year. Wave-induced motion appears to cause near-constant mobilization of bottom sediment. The overall regional mass transport trend suggests that net littoral transport of material is to the north from the proposed Site. That overall littoral transport appears to be balanced by offshore transport from the mouth of the Rogue River to the north of the proposed Site such that there is shoreline accretion to the north and relative equilibrium of the shoreline to the south.

(7) Existence and Effects of Current and Previous Discharges and Dumping in the Area (including Cumulative Effects) (40 CFR 228.6(a)(7)).

The approximate annual loading volume of dredged material placed at the proposed Site is expected to equal 54,000 cubic yards (cy) of material. This average was calculated by averaging seasonal material placement over disposal seasons from the time the site

became a selected site. EPA's evaluation of historical data and modeling conducted by the Corps concluded that past disposal operations have not resulted in unacceptable environmental degradation and future disposal of dredged material is not expected to result in unacceptable environmental degradation. Although mounding is a potential effect at any dredged material disposal site, bathymetric surveys at the Rogue River ODMDS have not shown persistent mounding over the 30 year site use history. Annual monitoring of the proposed Site will be required in the draft SMMP for the proposed Site. In the unlikely event mounding occurred, the draft SMMP includes requirements for managing the proposed Site to address mounding issues.

(8) Interference with Shipping, Fishing, Recreation, Mineral Extraction, Desalination, Fish and Shellfish Culture, Areas of Special Scientific Importance and Other Legitimate Uses of the Ocean (40 CFR 228.6(a)(8)).

Designation of the proposed Site is not expected to interfere with shipping, fishing, recreation or other legitimate uses of the ocean. Disposals at the new Site will be managed through the SMMP to minimize interference with other legitimate uses of the ocean through careful timing and staggering of disposals in the near-shore portion of the proposed Site. Commercial and recreational fishing and commercial navigation are the primary uses for which such timing will be needed. No plans for mineral extraction offshore of the Rogue River are planned or proposed for this area. Data indicates that magnetic anomalies suggestive of mineral placer offshore deposits were actually attributable to near-surface masses of bedrock. No desalination or energy projects are planned in the vicinity of the proposed Site. Fish and shellfish culture operations are not under consideration for the area. There are no known areas of scientific importance in the vicinity of the proposed Site.

(9) The Existing Water Quality and Ecology of the Sites as Determined by Available Data or Trend Assessment of Baseline Surveys (40 CFR 228.6(a)(9)).

EPA has not identified any adverse water quality impacts from ocean disposal of dredged material as a result of disposal into the existing 103(b)-selected site at the Rogue River. The data collected for the 103(b)-selected site suggest that the pelagic and benthic communities, which are widespread in occurrence off the Oregon coast, are not expected to experience long-term impacts. The ability of this mobile sand community to rapidly recolonize

supports the conclusion that long-term adverse impacts will not occur from managed disposal of dredged material at the proposed Site.

(10) Potentiality for the Development or Recruitment of Nuisance Species in the Disposal Site (40 CFR 228.6(a)(10)).

Nuisance species, considered as any undesirable organism not previously existing at a location, have not been observed at, or in the vicinity of, the proposed Site. Material expected to be disposed at the proposed Site will primarily be marine sands but some fine-grained material, finer than natural background, may also be disposed. While this finer-grained material could have the potential to attract nuisance species to the proposed Site, no such recruitment has occurred while the proposed Site has been used as a 103(b)-selected site. Evidence suggests that such fine grained material is quickly dispersed from the site. The draft SMMP includes specific biological monitoring requirements, which would act to identify any nuisance species, and management requirements, which would allow EPA to direct special studies and/or operational changes to address the issue.

(11) Existence at or in Close Proximity to the Site of any Significant Natural or Cultural Feature of Historical Importance (40 CFR 228.6(a)(11)).

The proposed Site is located about two nautical miles south-southeast from the Rogue Reef complex, an ecologically unique feature among a system of neritic reefs off the Oregon coast. Material disposed at the proposed Site would be clean sand that is expected to settle to the seafloor quickly. Movement of the relatively small quantities of disposed sand into the reef area would be anticipated to occur, if at all, through naturally occurring littoral transport which would not be expected to adversely affect aquatic communities in the reef areas. No significant cultural features have been identified at, or in the vicinity of, the proposed Site. As discussed further below, EPA coordinated with Oregon's State Historic Preservation Officer and with Tribes in the vicinity of the proposed Site to identify any cultural features. None were identified. No shipwrecks were observed or documented within the proposed Site or its immediate vicinity. Notwithstanding heavy ship traffic supplying gold fields near this general area in the 1800s, side-scan sonar did not detect any shipwrecks and extensive review of shipwreck databases did not show any shipwrecks at, or near, the proposed Site.

e. National Environmental Policy Act (NEPA); Magnuson-Stevens Act (MSA); Marine Mammal Protection Act (MMPA); Coastal Zone Management Act (CZMA); Endangered Species Act (ESA); National Historic Preservation Act (NHPA)

(1) NEPA

Section 102 of the National Environmental Policy Act of 1969, as amended (NEPA), 42 U.S.C. 4321 to 4370f, requires that Federal agencies prepare an Environmental Impact Statement (EIS) for major federal actions significantly affecting the quality of the human environment. NEPA does not apply to EPA designations of ocean disposal sites under the MPRSA because the courts have exempted EPA's actions under the MPRSA from the procedural requirements of NEPA through the functional equivalence doctrine. Under that doctrine, as EPA discussed most recently in the Agency final rule revising the NEPA regulations, the courts reasoned that actions under the MPRSA are functionally equivalent to the analysis required under NEPA because such actions are undertaken with full consideration of environmental impacts and with opportunities for public involvement. See 72 FR 53653, September 19, 2007. EPA has, by policy, determined that the preparation of non-EIS NEPA documents for certain EPA regulatory actions, including actions under the MPRSA, is appropriate. EPA's "Notice of Policy and Procedures for Voluntary Preparation of NEPA Documents," (Voluntary NEPA Policy), 63 FR 58045 (October 29, 1998), sets out both the policy and procedures EPA uses when preparing such environmental review documents. EPA's 2007 revisions to 40 CFR Part 6 provided the framework EPA used to prepare the voluntary NEPA documents for this proposed action.

EPA's primary voluntary NEPA document for designating the proposed Site is the *Rogue River, Oregon Ocean Dredged Material Disposal Site Evaluation Study and Environmental Assessment, 2008* (EA), jointly prepared by EPA and the Corps. The EA and its Technical Appendices, which are part of the docket for today's proposed action, provide the threshold environmental review for the Site designation. The information from the EA is used extensively, above, in the discussion of the ocean dumping criteria. Because EPA's Voluntary NEPA Policy does not require the preparation of an EIS for this proposed action, the EA prepared for this Site designation is available for public comment and a final EA will be made available at the time of

final rulemaking. Persons interested in commenting on this issue should do so at this time. There may not be another opportunity to comment.

(2) MSA and MMPA

In the spring of 2008, EPA initiated consultation with the National Marine Fisheries Service (NMFS) concerning essential fish habitat and protected marine mammals. EPA prepared an essential fish habitat (EFH) assessment pursuant to Section 305(b), 16 U.S.C. 1855(b), of the Magnuson-Stevens Act, as amended (MSA), 16 U.S.C. 1801 to 1891d. NMFS is also reviewing EPA's EFH assessment and ESA Biological Assessment for purposes of the Marine Mammal Protection Act of 1972, as amended (MMPA), 16 U.S.C. 1361 to 1389. Consultation under both MMPA and MSA is still underway, but is expected to conclude before EPA takes any action to finalize today's proposed rule. Persons interested in commenting on this issue should do so at this time. There may not be another opportunity to comment.

(3) CZMA

EPA initiated consultation with the state of Oregon on coastal zone management issues in June and July of 2008. EPA prepared a consistency determination for the Oregon Ocean and Coastal Management Program (OCMP) to meet the requirements of the Coastal Zone Management Act, as amended, (CZMA), 16 U.S.C. 1451 to 1465, and will submit that determination formally to the Oregon Department of Land Conservation and Development (DLCD) for review.

(4) ESA

EPA initiated informal consultation with NMFS and the U.S. Fish and Wildlife Service on its action to designate the Rogue River ODMDS beginning in the spring of 2008. EPA prepared a Biological Assessment to assess the potential effects of the Site designation on aquatic and wildlife species to determine whether or not its action might adversely affect species listed as endangered or threatened and/or adversely modify or destroy their designated critical habitat. EPA found that its action would not be likely to adversely affect aquatic or wildlife species listed as endangered pursuant to the Endangered Species Act, as amended (ESA), 16 U.S.C. 1531 to 1544, or the critical habitat of such species. EPA found that site designation does not have a direct impact on any of the identified ESA species but also found that indirect impacts associated with reasonably foreseeable future disposal

activities had to be considered. These indirect impacts included a short-term increase in suspended solids and turbidity in the water column when dredged material was disposed at the new Site and an accumulation of material on the ocean floor when material was disposed at the Site. EPA concluded that while its action may affect ESA-listed species, the action would not be likely to adversely affect ESA-listed species or critical habitat.

The U.S. Fish and Wildlife Service (USFWS) concurred with EPA's finding that EPA's action to designate the proposed Rogue River ODMDS would not likely adversely affect listed species or critical habitat. Consultation with the USFWS for this proposed action is complete. The National Marine Fisheries Service (NMFS) is still reviewing the proposed action, but consultation with NMFS is expected to be completed before EPA takes any action to finalize today's proposed rule. EPA specifically requests that any comments concerning ESA be made at this time. This may be the only opportunity for interested persons to comment on this issue.

(5) NHPA

EPA initiated consultation with the State of Oregon's Historic Preservation Officer (SHPO) to address National Historic Preservation Act, as amended (NHPA), 16 U.S.C. Sections 470 to 470a-2, which requires Federal agencies to take into account the effect of their actions on districts, sites, buildings, structures, or objects, included in, or eligible for inclusion in the National Register. EPA determined that no historic properties were affected, or would be affected, by the proposed designation of the Site. EPA did not find any historic properties within the geographic area of the proposed Site. This determination was based on an extensive review of the National Register of Historic Districts in Oregon, the Oregon National Register list and an assessment of cultural resources near the proposed Site. Side scan sonar of the proposed Site did not reveal the presence of any shipwrecks or other cultural or historic properties. This consultation is expected to be completed before EPA takes any action to finalize today's proposed rule. EPA specifically requests that any comments concerning NHPA be made at this time. This may be the only opportunity for interested persons to comment on this issue.

3. Statutory and Executive Order Reviews

This rule proposed to designate an ocean dredged material disposal site pursuant to Section 102 of the MPRSA. This rule complies with applicable executive orders and statutory provisions as follows:

(1) Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant," and therefore subject to OMB review and the requirements of the Executive Order. The Executive Order defines "significant regulatory action" as one that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more, or adversely affect in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. EPA has determined that this proposed rule is not a "significant regulatory action" under the terms of Executive Order 12866 and is therefore not subject to OMB review.

(2) Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, because this proposed rule does not establish or modify any information or recordkeeping requirements for the regulated community and only seeks to authorize the pre-existing requirements under State law and imposes no additional requirements beyond those imposed by State law.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing, and maintaining information, and disclosing and providing information; adjust the

existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in Title 40 of the CFR are listed in 40 CFR Part 9.

(3) Regulatory Flexibility

The Regulatory Flexibility Act (RFA), generally requires Federal agencies to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business defined by the Small Business Administration's size regulations at 13 CFR Part 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. EPA has determined that this action will not have a significant economic impact on small entities because the proposed rule will only have the effect of regulating the location of a site to be used for the disposal of dredged material in ocean waters. After considering the economic impacts of today's rule, I certify that this action will not have a significant economic impact on a substantial number of small entities. EPA continues to be interested in the potential impacts of the proposed rule on small entities and welcomes comments on issues related to such impacts.

(4) Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act (UMRA) of 1995, 2 U.S.C. 1531 to 1538, for State, local, or tribal governments or the private sector. This action imposes no new enforceable duty

on any State, local, or tribal governments or the private sector. Therefore, this action is not subject to the requirements of sections 202 or 205 of the UMRA. This action is also not subject to the requirements of section 203 of the UMRA because it contains no regulatory requirements that might significantly or uniquely affect small government entities. Those entities are already subject to existing permitting requirements for the disposal of dredged material in ocean waters.

(5) Executive Order 13132: Federalism

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among various levels of government.” This rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among various levels of government, as specified in Executive Order 13132. This rule proposes to designate a site for the disposal of dredged material in ocean waters. Thus, Executive Order 13132 does not apply to this rule. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

(6) Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This proposed rule does not have tribal implications, as specified in Executive Order 13175 because the designation of this dredged material disposal Site will not have a direct effect on Indian Tribes, on the relationship between the federal government and Indian Tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes. Thus, Executive Order 13175 does not apply to this rule. Although Executive Order 13175 does not apply to this proposed rule EPA consulted with tribal officials in the development of this rule,

particularly as it relates to potential impacts to historic or cultural resources. EPA specifically solicits additional comment on this proposed rule from tribal officials.

(7) Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks. The proposed action concerns the designation of an ocean disposal Site and would only have the effect of providing a designated location to use for ocean disposal of dredged material pursuant to section 102(c) of the MPRSA.

(8) Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, “Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use” (66 FR 28355, May 22, 2001) because it is not a “significant regulatory action” as defined under Executive Order 12866.

(9) National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law 104–113, Section 12(d) (15 U.S.C. 272), directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards. The proposed action includes environmental monitoring and measurement as described in EPA’s draft SMMP. EPA will not require the use of specific, prescribed analytic methods for monitoring and managing the proposed Site once designated. Rather, the Agency plans to allow the use of any method, whether it constitutes a

voluntary consensus standard or not, that meets the monitoring and measurement criteria discussed in the final SMMP. EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

(10) Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low Income Populations

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States. EPA has determined that this proposed rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. EPA has assessed the overall protectiveness of designating the proposed disposal Site against the criteria established pursuant to the MPRSA to ensure that any adverse impact on the environment will be mitigated to the greatest extent practicable.

List of Subjects in 40 CFR Part 228

Environmental protection, Water pollution control.

Authority: This action is issued under the authority of Section 102 of the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. 1401, 1411, 1412.

Dated: October 1, 2008.

Elin D. Miller,
Regional Administrator, Region 10.

For the reasons set out in the preamble, Chapter I of title 40 is amended as set forth below:

PART 228—[AMENDED]

1. The authority citation for Part 228 continues to read as follows:

Authority: 33 U.S.C. Sections 1412 and 1418.

2. Section 228.15 is amended by adding paragraph (n)(6) as follows:

§ 228.15 Dumping sites designated on a final basis.

* * * * *

(n) * * *

(6) Rogue River, OR—Dredged Material Site

(i) *Location*: 42°24' 5.40" N, 124°26'52.39" W; 42°24'03.40" N, 124°26'39.39" W; 42°23'39.40" N, 124°27'17.40" W; 42°23'51.40" N, 124°27'30.40" W (NAD 83)

(ii) *Size*: Approximately 1.1 kilometers long and 0.4 kilometers wide.

(iii) *Depth*: Ranges from approximately 15 to 27 meters

(iv) *Primary Use*: Dredged material

(v) *Period of Use*: Continuing Use

(vi) *Restrictions*: (1) Disposal shall be limited to dredged material determined to be suitable for ocean disposal according to 40 CFR 227.13, from the Rogue River navigation channel and adjacent areas; (2) Disposal shall be managed by the restrictions and requirements contained in the currently approved Site Management and Monitoring Plan (SMMP); (3) Monitoring, as specified in the SMMP, is required.

(7) (reserved)

[FR Doc. E8–24176 Filed 10–10–08; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION**47 CFR Part 73**

[DA 08–2147; MB Docket No. 08–199; RM–11486]

Television Broadcasting Services; Kearney, NE

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a channel substitution proposed by Pappas Telecasting of Central Nebraska, L.P. ("Pappas"), the permittee of KHGI-DT, DTV channel 36, Kearney, Nebraska. Pappas requests the substitution of DTV channel 13 for channel 36 at Kearney.

DATES: Comments must be filed on or before November 13, 2008, and reply comments on or before November 28, 2008.

ADDRESSES: Federal Communications Commission, Office of the Secretary, 445 12th Street, SW., Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve counsel for petitioner as follows: Kathleen Victory, Esq., Fletcher, Heald

& Hildreth, PLC, 1300 North 17th Street, 11th Floor, Arlington, VA 22209.

FOR FURTHER INFORMATION CONTACT:

Joyce L. Bernstein,
joyce.bernstein@fcc.gov, Media Bureau,
(202) 418–1600.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MB Docket No. 08–199, adopted September 19, 2008, and released September 25, 2008. The full text of this document is available for public inspection and copying during normal business hours in the FCC's Reference Information Center at Portals II, CY–A257, 445 12th Street, SW., Washington, DC 20554. This document will also be available via ECFS (<http://www.fcc.gov/cgb/ecfs/>). (Documents will be available electronically in ASCII, Word 97, and/or Adobe Acrobat.) This document may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone 1–800–478–3160 or via e-mail <http://www.BCPIWEB.com>. To request this document in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to fcc504@fcc.gov or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (TTY). This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, therefore, it does not contain any proposed information collection burden "for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, *see* 44 U.S.C. 3506(c)(4).

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding. Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Television, Television broadcasting.

For the reasons discussed in the preamble, the Federal Communications

Commission proposes to amend 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336.

§ 73.622(i) [Amended]

2. Section 73.622(i), the DTV Table of Allotments under Nebraska, is amended by adding channel 13 and removing channel 36 at Kearney.

Federal Communications Commission.

Clay C. Pendarvis,

Associate Chief, Video Division, Media Bureau.

[FR Doc. E8–24303 Filed 10–10–08; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION**47 CFR Part 73**

[DA 08–1503; MB Docket No. 08–100; RM–11437]

Television Broadcasting Services; Columbus, GA

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a channel substitution proposed by WTVM License Subsidiary, LLC ("WTVM"), the permittee of WTVM-DT, post-transition digital channel 9, Columbus, Georgia. WTVM requests the substitution of digital channel 11 for post-transition digital channel 9 at Columbus.

DATES: Comments must be filed on or before November 13, 2008, and reply comments on or before November 28, 2008.

ADDRESSES: Federal Communications Commission, Office of the Secretary, 445 12th Street, SW., Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve counsel for petitioner as follows: Jennifer A. Johnson, Esq., Covington & Burlington, LLP, 1201 Pennsylvania Avenue, NW., Washington, DC 20004–2401.

FOR FURTHER INFORMATION CONTACT:

Shaun A. Maher, shaun.maher@fcc.gov, Media Bureau, (202) 418–1600.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MB Docket No. 08–100, adopted September 25, 2008, and released September 30, 2008. The

full text of this document is available for public inspection and copying during normal business hours in the FCC's Reference Information Center at Portals II, CY-A257, 445 12th Street, SW., Washington, DC 20554. This document will also be available via ECFS (<http://www.fcc.gov/cgb/ecfs/>). (Documents will be available electronically in ASCII, Word 97, and/or Adobe Acrobat.) This document may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY-B402, Washington, DC 20554, telephone 1-800-478-3160 or via e-mail <http://www.BCPIWEB.com>. To request this document in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to fcc504@fcc.gov or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any proposed information collection burden "for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding. Members of the public should note that from the time a Notice of Proposed Rule Making is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Television, Television broadcasting.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336.

§ 73.622(i) [Amended]

2. Section 73.622(i), the DTV Table of Allotments under Georgia, is amended by adding channel 11 and removing channel 9 at Columbus.

Federal Communications Commission.

Clay C. Pendarvis,

Associate Chief, Video Division, Media Bureau.

[FR Doc. E8-24319 Filed 10-10-08; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[DA 08-2161; MB Docket No. 08-103; RM-11441]

Television Broadcasting Services; Augusta, GA

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: The Commission requests comments on a channel substitution proposed by Southeastern Media Holdings, Inc. ("SMH"), the permittee of WFXG-DT, post-transition digital channel 51, Augusta, Georgia. SMH requests the substitution of digital channel 31 for post-transition digital channel 51 at Augusta.

DATES: Comments must be filed on or before November 13, 2008, and reply comments on or before November 28, 2008.

ADDRESSES: Federal Communications Commission, Office of the Secretary, 445 12th Street, SW., Washington, DC 20554. In addition to filing comments with the FCC, interested parties should serve counsel for petitioner as follows: Harry C. Martin, Esq., Fletcher, Heald & Hildreth, PLC, 1300 North 17th Street, 11th Floor, Arlington, VA 22209.

FOR FURTHER INFORMATION CONTACT:

Shaun A. Maher, shaun.maher@fcc.gov, Media Bureau, (202) 418-1600.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Commission's Notice of Proposed Rule Making, MB Docket No. 08-103, adopted September 25, 2008, and released September 30, 2008. The full text of this document is available for public inspection and copying during normal business hours in the FCC's Reference Information Center at Portals II, CY-A257, 445 12th Street, SW., Washington, DC 20554. This document will also be available via ECFS (<http://www.fcc.gov/cgb/ecfs/>). (Documents will be available electronically in ASCII, Word 97, and/or Adobe Acrobat.) This document may be purchased from the

Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW., Room CY-B402, Washington, DC 20554, telephone 1-800-478-3160 or via e-mail <http://www.BCPIWEB.com>. To request this document in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to fcc504@fcc.gov or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document does not contain proposed information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, therefore, it does not contain any proposed information collection burden "for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

Provisions of the Regulatory Flexibility Act of 1980 do not apply to this proceeding. Members of the public should note that from the time a Notice of Proposed Rulemaking is issued until the matter is no longer subject to Commission consideration or court review, all *ex parte* contacts are prohibited in Commission proceedings, such as this one, which involve channel allotments. See 47 CFR 1.1204(b) for rules governing permissible *ex parte* contacts.

For information regarding proper filing procedures for comments, see 47 CFR 1.415 and 1.420.

List of Subjects in 47 CFR Part 73

Television, Television broadcasting.

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 303, 334, 336.

§ 73.622(i) [Amended]

2. Section 73.622(i), the Post-Transition Table of DTV Allotments under Georgia, is amended by adding channel 31 and removing channel 51 at Augusta.

Federal Communications Commission.

Clay C. Pendarvis,

Associate Chief, Video Division, Media Bureau.

[FR Doc. E8-24289 Filed 10-10-08; 8:45 am]

BILLING CODE 6712-01-P

Notices

Federal Register

Vol. 73, No. 199

Tuesday, October 14, 2008

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

October 8, 2008.

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104-13. Comments regarding (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; (c) ways to enhance the quality, utility and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology should be addressed to: Desk Officer for Agriculture, Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), OIRA_Submission@OMB.EOP.GOV or fax (202) 395-5806 and to Departmental Clearance Office, USDA, OCIO, Mail Stop 7602, Washington, DC 20250-7602. Comments regarding these information collections are best assured of having their full effect if received within 30 days of this notification. Copies of the submission(s) may be obtained by calling (202) 720-8958.

An agency may not conduct or sponsor a collection of information unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to

the collection of information unless it displays a currently valid OMB control number.

National Agricultural Statistics Service

Title: Milk and Milk Products.

OMB Control Number: 0535-0020.

Summary of Collection: The National Agricultural Statistics Service's (NASS) primary function is to prepare and issue current official state and national estimates of crop and livestock production. Estimates of milk production and manufactured dairy products are an integral part of this program. Milk and dairy statistics are used by the U.S. Department of Agriculture (USDA) to help administer price support programs and by the dairy industry in planning, pricing, and projecting supplies of milk and milk products. The general authority for these data collection activities is granted under U.S. Code Title 7, Section 2204.

Need and Use of the Information:

NASS will collect information on monthly estimates of stocks, shipments, and selling prices for such products as butter, cheese, dry whey, and nonfat dry milk. Cheddar cheese prices are collected weekly and used by USDA to assist in the determination of the fair market value of raw milk. Estimates of total milk production, number of milk cow, and milk production per cow, are used by the dairy industry in planning, pricing, and projecting supplies of milk and milk products. Collecting data less frequently would prevent USDA and the agricultural industry from keeping abreast of changes at the State and national level.

Description of Respondents: Farms; Business or other for-profit.

Number of Respondents: 25,053.

Frequency of Responses: Reporting: Quarterly; Weekly; Monthly; Annually.

Total Burden Hours: 10,748.

National Agricultural Statistics Service

Title: Field Crops Objective Yield.

OMB Control Number: 0535-0088.

Summary of Collection: The primary function of the National Agricultural Statistics Service (NASS) is to prepare and issue current official State and national estimates of crop and livestock production. General authority for these data collection activities is granted under U.S. Code Title 7, Section 2204. This statute specifies the "The Secretary of Agriculture shall procure and preserve all information concerning

agriculture which he can obtain * * * by the collection of statistics * * * and shall distribute them among agriculturists". Data collected provides yield estimates for corn, cotton, potatoes, soybeans and wheat. The yield estimates are extremely important because they're used in conjunction with price data to estimate production and in making policy decisions in agricultural sectors.

Need and Use of the Information:

NASS will collect information on sample fields of corn, cotton, soybeans, potatoes, and winter, Durum and other Spring wheat. The information will be used to anticipate loan receipts and pricing of loan stocks for grains.

Description of Respondents: Farms.

Number of Respondents: 8,700.

Frequency of Responses: Reporting: Monthly during growing season.

Total Burden Hours: 3,104.

Charlene Parker,

Departmental Information Collection Clearance Officer.

[FR Doc. E8-24311 Filed 10-10-08; 8:45 am]

BILLING CODE 3410-20-P

DEPARTMENT OF AGRICULTURE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Announcement of the First Meeting of the 2010 Dietary Guidelines Advisory Committee and Solicitation of Written Comments

AGENCIES: U.S. Department of Agriculture (USDA), Food, Nutrition and Consumer Services (FNCS) and Research, Education and Economics (REE); and U.S. Department of Health and Human Services (HHS), Office of Public Health and Science (OPHS).

ACTION: Notice.

SUMMARY: The Department of Agriculture and the Department of Health and Human Services (a) provide notice of the first meeting of the Dietary Guidelines Advisory Committee and (b) solicit written comments pertinent to review of the *Dietary Guidelines for Americans*.

DATES: This Notice is provided to the public on October 14, 2008. (a) The first Dietary Guidelines Advisory Committee

meeting will be held on October 30 and 31, 2008, from 8:30 a.m.–4 p.m. E.S.T. on both days. (b) Written comments on the Guidelines received by October 24, 2008 will be ensured transmission to the Committee prior to this meeting. Written comments will, however, be accepted throughout the Committee's deliberations.

ADDRESSES: The first meeting will take place at the U.S. Department of Agriculture, Jefferson Auditorium, 1400 Independence Ave., SW., Washington, DC 20250. Written comments are encouraged to be submitted electronically at <http://www.DietaryGuidelines.gov>. A "submit comments" button will be available to click on. Comments can also be mailed to the following address: Carole Davis, Co-Executive Secretary of the Dietary Guidelines Advisory Committee, Center for Nutrition Policy and Promotion, U.S. Department of Agriculture, 3101 Park Center Drive, Room 1034, Alexandria, VA 22302, (703) 305–7600 (telephone), (703) 305–3300 (fax).

FOR FURTHER INFORMATION CONTACT: USDA Co-Executive Secretaries: Carole Davis (telephone 703–305–7600), Center for Nutrition Policy and Promotion, 3101 Park Center Drive, Room 1034, Alexandria, Virginia 22302; or, Shanthy Bowman (telephone 301–504–0619), Agricultural Research Service (ARS), Beltsville Human Nutrition Research Center, 10300 Baltimore Avenue, Building 005, Room 125, BARC–WEST, Beltsville, Maryland 20705. HHS Co-Executive Secretaries: Kathryn McMurry (telephone 240–453–8280) or Holly McPeak (telephone 240–453–8280), Office of Disease Prevention and Health Promotion, Office of Public Health and Science, 1101 Wootton Parkway, Suite LL100, Rockville, Maryland 20852. Additional information is available on the Internet at <http://www.DietaryGuidelines.gov>.

SUPPLEMENTARY INFORMATION:

Purpose of the Meeting: Section 301 of Public Law 101–445 (7 U.S.C. 5341, the National Nutrition Monitoring and Related Research Act of 1990, Title III) directs the Secretaries of USDA and HHS to publish the *Dietary Guidelines for Americans* at least every five years. Based on a thorough review of the most current scientific and applied literature, the Dietary Guidelines Advisory Committee will advise the Secretaries as to whether a revision of the *Dietary Guidelines for Americans*, 2005 is warranted. If the Committee decides a revision is warranted, it will provide its recommendations in an advisory report to the Secretaries.

Meeting Agenda: The meeting agenda will include (a) Orientation for the Committee members, (b) presentations on the history of the *Dietary Guidelines* and how they are used, (c) presentation on USDA's Nutrition Evidence Library, (d) formulation of plans for future work of the Committee.

Public Participation and Building Access

The Jefferson Auditorium is in the USDA South Building, located on the corner of Independence Ave. and 14th Street, SW., Washington, DC. The meeting is open to the public. Due to the need for security screening, pre-registration is required and all visitors must bring a photo I.D. To pre-register, please go to <http://www.DietaryGuidelines.gov> and click on the link for Meeting Registration or call the scheduler through the meeting planner, Crystal Tyler, at 202–314–4701 by 5 p.m. E.S.T., October 28, 2008.

Registration must include name, affiliation, phone number or e-mail, and days attending. Space is limited for this meeting. Early registration is recommended. Following pre-registration, individuals will receive a confirmation of registration via e-mail. This e-mail will also include important information regarding security procedures for entering the South Building, instructions to the Jefferson Auditorium, and metro, parking, and hotel information. Written comments from the public will be accepted; opportunities to present oral comments may be provided at future meetings. Please call Crystal Tyler at 202–314–4701 should you require a sign language interpreter or require other special accommodations. Documents pertaining to Committee deliberations will be available for public viewing at the meeting, and thereafter, will also be accessible 8:30 a.m. to 4:30 p.m. Eastern time, Monday through Friday (except Federal holidays) at the Reference Desk of the National Agricultural Library, USDA/ARS, 10301 Baltimore Avenue, Beltsville, MD 20705. The Reference Desk telephone phone number is 301–504–5755; however, no advanced appointments are necessary. Documents will be made available the day before and following the meeting. Meeting materials (i.e., agenda, meeting minutes, and transcript) will be made available at <http://www.DietaryGuidelines.gov>.

Dated: August 22, 2008.

Brian Wansink,

Executive Director, Center for Nutrition Policy and Promotion, U.S. Department of Agriculture.

Dated: August 27, 2008.

Edward B. Knippling,

Administrator, Agricultural Research Service, U.S. Department of Agriculture.

Dated: August 22, 2008.

Penelope Slade Royall,

Deputy Assistant Secretary for Health (Disease Prevention and Health Promotion), U.S. Department of Health and Human Services.

[FR Doc. E8–24294 Filed 10–10–08; 8:45 am]

BILLING CODE 3410–30–P

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. APHIS–2008–0066]

Notice of Decision To Issue Permits for the Importation of Guavas From Mexico Into the United States

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice.

SUMMARY: We are advising the public of our decision to begin issuing permits for the importation into the United States of fresh guava fruit from Mexico. Based on the findings of a pest risk analysis, which we made available to the public for review and comment through a previous notice, we believe that the application of one or more designated phytosanitary measures will be sufficient to mitigate the risks of introducing or disseminating plant pests or noxious weeds via the importation of guavas from Mexico.

DATES: *Effective Date:* October 14, 2008.

FOR FURTHER INFORMATION CONTACT: Mr. David B. Lamb, Import Specialist, Commodity Import Analysis and Operations, PPQ, APHIS, 4700 River Road Unit 133, Riverdale, MD 20737–1231; (301) 734–8758.

SUPPLEMENTARY INFORMATION:

Background

Under the regulations in "Subpart—Fruits and Vegetables" (7 CFR 319.56 through 319.56–47, referred to below as the regulations), the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture prohibits or restricts the importation of fruits and vegetables into the United States from certain parts of the world to prevent plant pests from being introduced into and spread within the United States.

Section 319.56–4 of the regulations contains a performance-based process for approving the importation of commodities that, based on the findings of a pest risk analysis, can be safely imported subject to one or more of the designated phytosanitary measures listed in paragraph (b) of that section. Under that process, APHIS publishes a notice in the **Federal Register** announcing the availability of the pest risk analysis that evaluates the risks associated with the importation of a particular fruit or vegetable. Following the close of the 60-day comment period, APHIS may begin issuing permits for importation of the fruit or vegetable subject to the identified designated measures if: (1) No comments were received on the pest risk analysis; (2) the comments on the pest risk analysis revealed that no changes to the pest risk analysis were necessary; or (3) changes to the pest risk analysis were made in response to public comments, but the changes did not affect the overall conclusions of the analysis and the Administrator's determination of risk.

In accordance with that process, we published a notice¹ in the **Federal Register** on June 26, 2008 (73 FR 36296–36297, Docket No. APHIS–2008–0066), in which we announced the availability, for review and comment, of a pest risk analysis that evaluates the risks associated with the importation into the United States of fresh guava fruit from Mexico. We solicited comments on the notice for 60 days ending on August 25, 2008. We received seven comments by that date, from guava producers, a State department of agriculture, and the Mexican department of agriculture. Six of the commenters supported the importation of guavas from Mexico under the conditions described in the risk management document. One commenter raised concerns about those conditions. These concerns are addressed in an appendix to the pest risk analysis. We have made a change to the pest risk analysis in response to this comment, but the change did not affect the overall conclusions of the analysis and the Administrator's determination of risk. The amended portion of the pest risk analysis and the appendix may be viewed on the Regulations.gov Web site or in our reading room (see **ADDRESSES** above for instructions for accessing Regulations.gov and information on the location and hours of the reading room).

Therefore, in accordance with the regulations in § 319.56–4(c)(2)(ii), we

are announcing our decision to begin issuing permits for the importation into the United States of guavas from Mexico subject to the following phytosanitary measures:

- The guavas must be irradiated with a minimum absorbed dose of 400 gray.
- Each consignment of guavas must be inspected by the national plant protection organization (NPPO) of Mexico and accompanied by a phytosanitary certificate issued by the NPPO of Mexico. The phytosanitary certificate must document that the consignment received the required irradiation treatment. The phytosanitary certificate must also contain an additional declaration that states:

The fruit in this shipment was treated by irradiation with a minimum absorbed dose of 400 Gy and inspected and found free of *Oligonychus biharensis*, *Oligonychus psidium*, *Mycovellosiella psidii*, *Pestalotiopsis psidii*, and *Sphaceloma psidii*.

- The guavas may be imported into the United States in commercial consignments only.

These conditions will be listed in the fruits and vegetables manual (available at http://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/fv.pdf). In addition to those specific measures, guavas from Mexico will be subject to the general requirements listed in § 319.56–3 that are applicable to the importation of all fruits and vegetables.

Authority: 7 U.S.C. 450, 7701–7772, and 7781–7786; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

Done in Washington, DC, this 8th day of October 2008.

Cindy Smith,

Administrator, Animal and Plant Health Inspection Service.

[FR Doc. E8–24334 Filed 10–10–08; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF COMMERCE

Submission for OMB Review; Comment Request

The Department of Commerce will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

Agency: U.S. Census Bureau.

Title: Quarterly Survey of Public Employee Retirement Systems.

OMB Control Number: 0607–0143.

Form Number(s): F–10.

Type of Request: Revision of a currently approved collection.

Burden Hours: 300.

Number of Respondents: 100.

Average Hours per Response: 45 minutes.

Needs and Uses: Over 2.9 trillion dollars in public-employee retirement system assets in the financial markets are controlled by a small number of large systems. The 2002 Census of Governments identified 2,670 state and local government administered public-employee retirement systems. The 100 largest systems, as measured by the system assets, account for about 90 percent of the total assets of all systems. This form is used to collect financial data from these 100 systems for policy makers and economists to follow the changing characteristics of these funds.

This survey was initiated by the Census Bureau at the request of both the Council of Economic Advisors and the Federal Reserve Board. The most important information this survey provides is the quarterly change in composition of the securities holdings of the public employee retirement systems component of the economy. The Federal Reserve Board uses these data to track the public sector portion of the flow of funds accounts. The Bureau of Economic Analysis uses the quarterly retirement information on corporate stock holdings to estimate dividends received by state and local government retirement systems that, in turn, are used in preparing the national income and product accounts. Additionally, these data are a significant part of the information base needed to analyze investment trends and help in the formulation of governmental economic policies and investment decisions.

A minor revision is being made to clarify part A.4. Earnings on investments. The statement, 'The net of gains and losses on the sale of investments is reported at 4c' was removed; and the statement 'Include both realized + unrealized gains (losses)' was added to part A.4.c. Net gain or loss on investments.

Affected Public: State, local or Tribal government.

Frequency: Quarterly.

Respondent's Obligation: Voluntary.

Legal Authority: Title 13 U.S.C., Section 182.

OMB Desk Officer: Brian Harris-Kojetin, (202) 395–7314.

Copies of the above information collection proposal can be obtained by calling or writing Diana Hynek, Departmental Paperwork Clearance Officer, (202) 482–0266, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at dhynek@doc.gov).

¹ To view the notice, the pest risk analysis, the risk management analysis, and the comments we received, go to <http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=APHIS-2008-0066>.

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to Brian Harris-Kojetin, OMB Desk Officer either by fax (202-395-7245) or e-mail (bharrisk@omb.eop.gov).

Dated: October 7, 2008.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E8-24225 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-07-P

DEPARTMENT OF COMMERCE

U.S. Census Bureau

Proposed Information Collection; Comment Request; Geographic Partnership Programs

AGENCY: U.S. Census Bureau.

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3506(c)(2)(A)).

DATES: To ensure consideration, written comments must be submitted on or before December 15, 2008.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument(s) and instructions should be directed to Linda Franz, U.S. Census Bureau, Washington, DC 20233-7400, 301-763-9061 (or via Internet at Linda.M.Franz@census.gov).

SUPPLEMENTARY INFORMATION:

I. Abstract

The mission of the Geography Division within the Census Bureau is to plan, coordinate, and administer all geographic and cartographic activities needed to facilitate Census Bureau statistical programs throughout the United States and its territories. The Geography Division manages programs to continuously update features, boundaries, addresses, and geographic

entities in the Master Address File/Topologically Integrated Geographic Encoding and Referencing System (MAF/TIGER) database (MTdb). The Geography Division also conducts research into geographic concepts, methods, and standards needed to facilitate Census Bureau data collection and dissemination programs.

Geographic Partnership Programs (GPPs) will allow designated participants, following Census Bureau guidelines, to review and suggest modifications to addresses and geographic boundaries to maintain the Census Bureau MTdb and to accurately report data from censuses and surveys. Because tribal, state, and local governments have current knowledge of and data about where growth and change are occurring in their jurisdictions, their input into the overall development of the address list for the censuses and surveys makes a vital contribution. Similarly, those governments are in the best position to work with geographic boundaries, and benefit themselves not only when their address list is complete, but also when their data tabulation areas are drawn to be relevant to user needs.

II. Method of Collection

This presubmission notice is for a generic clearance called the GPPs that will cover a number of activities needed to update the MTdb with associated address and geographic information. The information to be collected in these programs in cooperation with tribal, state, and local governments and other partners is essential to the mission of the Census Bureau and directly contributes to the successful outcome of censuses and surveys conducted by the Census Bureau. The generic clearance will allow the Census Bureau to focus its limited resources on actual operational planning, development of procedures, and implementation of programs to update and improve the geographic information maintained in the MTdb.

The Census Bureau will develop guidelines and procedures for tribal, state, and local government submission of geographic and address data and will outline the mutual roles and responsibilities of each party. The list below is not exhaustive of all activities that may be performed under this generic clearance. The Census Bureau will follow the approved procedure when submitting any additional activities not specifically listed here.

A. Local Update of Census Addresses (LUCA)

The purpose of the 2010 Census LUCA program is to ensure that the Census Bureau develops, with the cooperation of tribal, state, and local governments in advance of the 2010 Census, the most accurate address list possible.

The Census Bureau's deadline for submission of 2010 Census LUCA updates from tribal, state, and local governments was May 30, 2008. This schedule permitted the Census Bureau to review and process the submissions in time for a nationwide field check called the Address Canvassing Operation.

B. LUCA Appeals

The procedures for the LUCA Appeals process will be published in a **Federal Register** Notice. The Census Bureau will provide feedback materials to LUCA participants documenting the disposition of their LUCA submission as determined by the Address Canvassing Operation. Eligible LUCA participating governments may appeal the Census Bureau's determinations regarding the address changes they initially submitted, as well as addresses for which they did not provide changes but that were deleted during Address Canvassing. All appeals must be filed within 30 calendar days of receipt of the feedback materials. To appeal, the eligible participants must provide specified contact information, specific addresses to be appealed, and specified supporting evidence.

Participants submit the appeals to an Office of Management and Budget (OMB)-designated agency that is independent of the Department of Commerce. The Appeals Office issues a final written determination to both the eligible government and the Census Bureau. The Appeals Office will complete all reviews and write all determinations as soon as possible, but no later than the end of March 2010. The decisions of the Appeals Office are final.

C. New Construction Program

The New Construction Program is the final opportunity to add city-style housing unit addresses for newly-built structures closed to the elements by Census Day (April 1, 2010). The full details of the New Construction Program will be announced in a **Federal Register** Notice. The New Construction program runs from November 2009 to February 2010. This program is offered only to local, tribal, and county governments in areas where the census questionnaires

will be delivered by mail (approximately 23,000 entities).

Following the invitation and registration processes, the Census Bureau will send the participants the New Construction materials, which consist of instructions and maps (shapefiles or Portable Document Format (PDF) files). The participants must return their new construction addresses in the format specified by the Census Bureau.

D. Redistricting Data Program

The 2010 Census Redistricting Data Program is established in accordance with the provisions of Title 13 U.S.C. 141(C) and provides the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico the opportunity to specify the small geographic areas for which they wish to receive decennial census population totals for the purpose of reapportionment and redistricting. The law requires that the Census Bureau allow those having responsibility for apportionment or districting of each State be given the opportunity to specify geographic areas for which they wish to receive decennial census population counts. The law also requires that by April 1 of the year following the decennial census the Secretary of Commerce (Secretary) will furnish State officials or their designees with population counts for counties, cities, census blocks, and Congressional districts, legislative districts, and voting districts.

The States will have the opportunity to verify the inclusion of their voting districts and suggested tabulation block boundary features during 2009 and early 2010, to ensure the voting district boundaries that will be used by the Census Bureau are consistent with their submissions.

E. Participant Statistical Areas Program (PSAP) and Tribal Statistical Areas Program (TSAP)

The PSAP and TSAP are parallel geographic programs, developed to give local governments and regional planning agencies (PSAP) and tribal governments (TSAP) the opportunity to review, and update if necessary, statistical geographic areas for use in tabulating and publishing data from the 2010 Census, the American Community Survey, and other surveys. The program will be available to tribal and local governments for all States, the District of Columbia, and Puerto Rico. The participants review and update census tracts, block groups, census designated places, census county divisions, and tribal areas and submit digital files (or,

optionally, updated paper maps in the case of TSAP) back to the Census Bureau. The Census Bureau inserts the PSAP and TSAP areas into the MTdb.

F. Traffic Analysis Zones (TAZ) Program

The Census Bureau and the Federal Highway Administration (FHWA) identify and invite Metropolitan Planning Organizations (MPO) and/or State Departments of Transportation (DOTs) to be 2010 TAZ Program participants. TAZs are geographic areas that divide planning regions into relatively similar areas of land use, land activity, and commuter travel. TAZs are used to tabulate and present data as part of the Census Transportation Planning Products (CTPP), a special tabulation of American Community Survey data produced under contract with FHWA. The participants review and update the TAZs within their area of interest and submit the updated digital shapefiles back to the Census Bureau. The Census Bureau evaluates the submitted shapefiles and inserts the TAZs into the MTdb.

G. School District Review Program (SDRP)

The Census Bureau conducts the SDRP every two years under contract from the National Center for Education Statistics (NCES) of the U.S. Department of Education. The Census Bureau invites state education officials to be participants in the review and update of its national inventory of school district boundaries and district information. State education officials collaborate with local superintendents on the response. The participants review and provide updates and corrections to the elementary, secondary, and unified school district names and Federal Local Education Agency (LEA) identification numbers, school district boundaries, and the grade ranges for which a school district is financially responsible. The participants submit updated digital files back to the Census Bureau.

The Census Bureau uses the updated school district information along with the most current Census population and income data, current population estimates, and tabulations of administrative records data, to form the Census Bureau's estimates of the number of children aged 5 through 17 in low-income families for each school district. These estimates of the number of children in low-income families residing within each school district are the basis of the funding allocation for each school district under Title I of the Elementary and Secondary Education Act as amended by the No Child Left

Behind Act of 2001, Public Law (Pub. L.) 107-110.

III. Data

OMB Control Number: 0607-0795.
Form Number: None.
Type of Review: Regular submission.
Affected Public: State, local, and tribal governments.
Estimated Number of Respondents: 19,883.
Estimated Time per Response: 309 hours.
Estimated Total Annual Burden Hours: 3,915,478.
Estimated Total Annual Cost: \$0.
Respondent's Obligation: Voluntary.
Legal Authority: Title 13 U.S.C. Sections 141 and 193.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: October 8, 2008.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E8-24322 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-07-P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Docket 55-2008]

Foreign-Trade Zone 26—Atlanta, GA, Area; Application for Reorganization/Expansion

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Georgia Foreign-Trade Zone, Inc., grantee of FTZ 26, requesting authority to reorganize and expand the zone in the Atlanta, Georgia, area. The application was submitted pursuant to the provisions of the Foreign-Trade

Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Board (15 CFR part 400). It was formally filed on October 6, 2008.

FTZ 26 was approved on January 17, 1977 (Board Order 115, 42 FR 4186, 1/24/77); reorganized on April 18, 1988 (Board Order 381, 53 FR 15254, 4/28/88); and, expanded on April 29, 1996 (Board Order 820, 61 FR 21156, 5/9/96), on March 19, 1999 (Board Order 1033, 64 FR 16421, 4/5/99), on June 21, 2000 (Board Order 1105, 65 FR 39865, 6/28/00), and on July 8, 2005 (Board Order 1401, 70 FR 41201, 7/18/05).

The general-purpose zone project currently consists of twelve sites (5,391 acres total) in the Atlanta area: *Site 1* (285 acres, 2 parcels)—adjacent to the Hartsfield-Jackson Atlanta International Airport and jet fuel storage and distribution facilities in Clayton and Fulton Counties; *Site 2* (2,472 acres)—Peachtree City Industrial Park, Highway 74 South, Peachtree City; *Site 3* (85 acres)—Canton-Cherokee County Business and Industrial Park, Brown Industrial Boulevard, Canton; *Site 4* (1,152 acres)—within the 2,124-acre Muscogee Technology Park, located at the intersection of Georgia Highway 22 and State Route 80, Columbus; *Site 5* (49 acres)—Corporate Ridge/Columbus East Industrial Park, located at the intersection of Schatulga Road and Cargo Drive, Columbus; *Site 6* (394 acres)—within the 411-acre Green Valley Industrial Park, located at the intersection of Green Valley Road and State Route 16, Griffin; *Site 7* (64 acres)—Hudson Industrial Park, located at the intersections of Hudson Industrial Drive, Green Valley Road and Futral Road, Griffin; *Site 8* (190 acres)—I-75 Industrial Park, located at the intersection of Wallace Road and Jackson Road, Griffin; *Site 9* (321 acres)—Hamilton Mill Business Center, located at the intersection of Hamilton Mill Road and Interstate 985, Buford; *Site 10* (212 acres)—ProLogis Park Greenwood, located just west of Interstate 75 at the Georgia State Highway 155 diamond interchange, McDonough; *Temporary Site 1* (7 acres)—Southpoint Business Park (Building B), 2500 Southpoint Drive, Forest City (expires 7/31/09); and, *Temporary Site 2* (160 acres)—within the West Point Economic Development, located at the intersection of Interstate 85 and Webb Road, West Point (expires 7/31/09).

The applicant is now requesting authority for a reorganization and expansion of the zone, which includes both additions and deletions with an overall increase of 1,716 acres in total zone space as described below:

- Modify Existing Site 2 (Peachtree City Industrial park) by deleting 1,036 acres (new total acreage 1,436 acres);
- Delete Site 8 (I-75 Industrial Park) in its entirety due to changed circumstances;
- Proposed Site 11 (1,544 acres)—West Point Economic Development, located at the intersection of Interstate 85 and Webb Road, West Point (Troup County) (this site will include Temporary Site 2 on a permanent basis);
- Proposed Site 12 (241 acres)—within the 1,800-acre Callaway South Industrial Park, located at Pegasus Parkway and South Loop Extension off of Interstate 85, West Point;
- Proposed Site 13 (184 acres)—within the 541-acre Sofkee Industrial Park, 5898 Hawkinsville Road, Macon (Bibb County);
- Proposed Site 14 (230 acres)—Airport East Industrial Park, 8222 Hawkinsville Road, Macon;
- Proposed Site 15 (207 acres)—within the 715-acre Twiggs County Industrial Park, located at Interstate 16 and State Route 96, Jeffersonville (Twiggs County);
- Proposed Site 16 (308 acres)—Meridian 75 Logistics Center, located at Interstate 75 and Rumble Road, Forsyth (Monroe County);
- Proposed Site 17 (193 acres)—Majestic Airport Center III, located at Interstate 85 and Jonesboro Road (Highway 138), Union City (Fulton County); and,
- Proposed Site 18 (195 acres)—South Fulton Parkway Corporate Center, located at South Fulton Parkway and Derrick Road, Union City.

The sites will provide warehousing and distribution services to area businesses. No specific manufacturing authority is being requested at this time. Such requests would be made to the Board on a case-by-case basis.

In accordance with the Board's regulations, Camille Evans of the FTZ staff is designated examiner to investigate the application and report to the Board.

Public comment is invited from interested parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at the address below. The closing period for their receipt is December 15, 2008. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period to December 29, 2008.

A copy of the application and accompanying exhibits will be available for public inspection at each of the

following locations: U.S. Department of Commerce, Export Assistance Center, 75 Fifth Street, NW., Suite 1055, Atlanta, GA 30308; and, Office of the Executive Secretary, Foreign-Trade Zones Board, U.S. Department of Commerce, Room 2111, 1401 Constitution Avenue, NW., Washington, DC 20230.

For further information, contact Camille Evans at Camille_Evans@ita.doc.gov or (202) 482-2350.

Dated: October 8, 2008.

Andrew McGilvray,

Executive Secretary.

[FR Doc. E8-24326 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Docket 56-2008]

Foreign-Trade Zone 20—Suffolk, VA; Application for Subzone Status; STIHL Incorporated (Outdoor Power Products Manufacturing and Distribution), Virginia Beach, VA

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Virginia Port Authority, grantee of Foreign-Trade Zone (FTZ) 20, requesting special-purpose subzone status for the outdoor power products manufacturing and distribution facilities of STIHL Incorporated (STIHL) located in Virginia Beach, Virginia. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Board (15 CFR Part 400). It was formally filed on October 3, 2008.

The STIHL facilities are located at 536 Viking Drive, 2525 International Parkway, 601 Central Drive, 825 London Bridge Road, and 528 Viking Drive, in Virginia Beach (87 acres, 9 buildings, 2,000 employees). The facilities are used for the manufacture and distribution activities of various types of gas-powered and electric outdoor products and their parts (blowers, trimmers, sprayers, cutters, cultivators and chainsaws; HTSUS numbers 8414.59, 8467.29, 8424.81, 8467.89, 8432.29, 8467.22, and 8467.81). At full capacity the STIHL facility can produce up to 4 million units annually. Imported components and raw materials account for approximately 25 percent of the finished products' value. Parts and components that may be imported into the proposed subzone for manufacturing include: petroleum oils (2710.11); bituminous oils (2710.19); carbides

(2849.90); glues and adhesives (3506.91); pickling preparations (3810.90); organic solvents and thinners (3814.00); polyethylene (3901.20); propylene copolymers (3902.30); polyamides (3908.10); polyurethanes (3909.50); silicones (3910.00); petroleum resins (3911.90); monofilament plastics (3916.90); plastic tubes, pipes and hoses (3917.21, 3917.22, 3917.23, 3917.29, 3917.31, 3917.32, 3917.33, 3917.39, 3917.40); self-adhesive or non self-adhesive plates, sheets, film, foil, tape and strip (3919.10, 3919.90, 3920.10, 3920.62, 3920.92, 3921.11, 3921.90); plastic boxes, cases, crates, stoppers, lids, caps and other closures (3923.10, 3923.21, 3923.29, 3923.30, 3923.40, 3923.50, 3923.90, 3926.90); rubber tubes, pipes and hoses (4009.11, 4009.12, 4009.21, 4009.22, 4009.31, 4009.32, 4009.41, 4009.42); erasers (4016.92); vulcanized rubber gaskets, washers, seals and other articles (4016.93, 4016.99); plaiting materials (4601.29); synthetic twine, cordage, ropes and cables (5607.50); felt filters (5911.90); harnesses (6307.90); iron or steel tubes, flanges and pipe fittings (7307.21, 7307.91, 7307.92, 7307.99); iron and steel self-tapping screws, bolts, nuts, screws, screw hooks, rivets, cotters, cotter pins and washers (7318.14, 7318.15, 7318.16, 7318.19, 7318.21, 7318.24, 7318.29); leaf springs, leaves and helical springs (7320.10, 7320.20, 7320.90); iron or steel wire and other articles (7326.20, 7326.90); copper tube and pipe (7411.29); copper alloy tube and pipe (7412.20); copper-stranded wire and cable (7413.00); copper nails, tacks, drawing pins and staples (7415.21, 7415.29, 7415.33, 7415.39); aluminum foil (7607.20); aluminum tubes and pipes (7608.20); aluminum stranded wire, cable and plaited bands (7614.10, 7614.90); aluminum nails, tacks, staples and other articles (7616.10, 7616.99); zinc articles (7907.00); tungsten powders (8101.10); hand tools (8205.40, 8205.59); iron, steel or other base metal flexible tubing (8307.10, 8307.90); internal combustion engine parts (8409.91); fuel, lubricating or cooling pumps and their parts (8413.30, 8413.91); air or vacuum pumps and their parts (8414.59, 8414.90); oil or fuel filters (8421.21, 8421.23); fire extinguishers, spray guns, steam or sand blasting machines and their parts (8424.81, 8424.90); pressure-reducing valves, check valves, oleo-hydraulic valves, safety or relief valves and their parts (8481.10, 8481.20, 8481.30, 8481.40, 8481.80, 8481.90); ball bearings, roller bearings and their parts (8482.10, 8482.20, 8482.30, 8482.40, 8482.50, 8482.80, 8482.91,

8482.99); transmission shafts and cranks, bearing housings, torque converters, flywheels and pulleys, clutches and shaft couplings, toothed wheels and chain sprockets (8483.10, 8483.30, 8483.40, 8483.50, 8483.60, 8483.90); gaskets (8484.10, 8484.20, 8484.90); non-electrical machinery parts (8487.90); electric motors and generators (8501.10, 8501.20, 8501.31, 8501.32, 8501.33, 8501.34, 8501.40, 8501.51, 8501.52, 8501.53, 8501.61, 8501.62, 8501.63, 8501.64); electric generating sets (8502.20); parts for electric motors, generators and generator sets (8503.00); primary cells, batteries and their parts (8506.80); lead-acid storage batteries and their parts (8507.10, 8507.20, 8507.30, 8507.40, 8507.80, 8507.90); spark plugs (8511.10); ignition magnetos, magneto-dynamos and magnetic flywheels (8511.20); distributors and ignition coils (8511.30); generators and their parts (8511.50, 8511.90); portable electric lamps (8513.10); electrical switches, relays, fuses, plugs, sockets, lamp-holders, circuit breakers and junction boxes and their parts (8535.90, 8536.10, 8536.20, 8536.30, 8536.41, 8536.49, 8536.50, 8536.69, 8536.90, 8538.90); electric filament or discharge lamps and their parts (8539.22, 8539.29, 8539.31); cathode ray tubes and their parts (8540.89); coaxial cable and coaxial electric conductors with or without connectors (8544.20, 8544.42, 8544.49, 8544.60); non-propelled trailers and semi-trailers and their parts (8716.80, 8716.90); pneumatic hand tools (8467.11); and, vacuum cleaners and their parts (8508.11). The duty rates on the imported components range from duty-free to 12.5 percent.

This application requests authority for STIHL to conduct the manufacturing activity under FTZ procedures, which could exempt the company from customs duty payments on the imported components used in export production. Approximately 40 percent of production is exported. On domestic sales, the company could defer duty payment and choose the lower duty rate (duty-free to 4.7 percent) that applies to the finished products for the imported components used in manufacturing. STIHL may also realize savings related to direct delivery and weekly customs entry procedures. The company would also realize savings on the elimination of duties on materials that become scrap/waste during manufacturing. The application indicates that the FTZ-related savings would improve the plant's international competitiveness.

In accordance with the Board's regulations, Christopher Kemp of the FTZ staff is designated examiner to

investigate the application and report to the Board.

Public comment is invited from interested parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at the address listed below. The closing period for their receipt is December 15, 2008. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period (to December 29, 2008).

A copy of the application and accompanying exhibits will be available at each of the following addresses: Virginia Port Authority, 600 World Trade Center, Norfolk, VA 23510; and, Office of the Executive Secretary, Foreign-Trade Zones Board, Room 2111, U.S. Department of Commerce, 1401 Constitution Avenue, NW., Washington, DC 20230. For further information contact Christopher Kemp at christopher_kemp@ita.doc.gov or (202) 482-0862.

Dated: October 6, 2008.

Andrew McGilvray,

Executive Secretary.

[FR Doc. E8-24327 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

Proposed Information Collection; Comment Request; Offsets in Military Exports

AGENCY: Bureau of Industry and Security.

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: Written comments must be submitted on or before December 15, 2008.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be

directed to Larry Hall, BIS ICB Liaison, (202)482-4895, lhall@bis.doc.gov.

SUPPLEMENTARY INFORMATION:

I. Abstract

This collection of information is required by the Defense Production Act (DPA). The DPA requires U.S. firms to furnish information to the Department of Commerce regarding offset agreements exceeding \$5,000,000 in value associated with sales of weapon systems or defense-related items to foreign countries or foreign firms. Offsets are industrial or commercial compensation practices required as a condition of purchase in either government-to-government or commercial sales of defense articles and/or defense services as defined by the Arms Export Control Act and the International Traffic in Arms Regulations. Such offsets are required by most major trading partners when purchasing U.S. military equipment or defense related items.

II. Method of Collection

Submitted electronically or in paper form.

III. Data

OMB Control Number: 0694-0084.

Form Number(s): None.

Type of Review: Regular submission.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 30.

Estimated Time Per Response: 9 hours.

Estimated Total Annual Burden Hours: 270.

Estimated Total Annual Cost to Public: \$0.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: October 7, 2008.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. E8-24229 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-33-P

DEPARTMENT OF COMMERCE

International Trade Administration

[A-201-822]

Stainless Steel Sheet and Strip in Coils From Mexico: Extension of Time Limit for Final Results of Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: October 14, 2008.

FOR FURTHER INFORMATION CONTACT:

Maryanne Burke, or Robert James, AD/CVD Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482-5604, or (202) 482-0649, respectively.

SUPPLEMENTARY INFORMATION: On August 6, 2008, the Department of Commerce (the Department) published the preliminary results of the administrative review of the antidumping duty order on stainless steel sheet and strip in coils from Mexico for the period July 1, 2006, through June 30, 2007. *See Stainless Steel Sheet and Strip in Coils From Mexico; Preliminary Results of Antidumping Duty Administrative Review*, 73 FR 45708 (August 6, 2008). The current deadline for the final results of this review is December 4, 2008.

Extension of Time Limits for Final Results

Section 751(a)(3)(A) of the Tariff Act of 1930, as amended (the Act), requires the Department to issue the final results of an administrative review within 120 days after the date on which the preliminary results were published. However, if it is not practicable to complete the review within this time period, section 751(a)(3)(A) of the Act allows the Department to extend the time limit for the final results up to 180 days from the date of publication of the preliminary results.

The Department finds that it is not practicable to complete this review within the original time frame because additional analysis that must be performed with respect to respondent ThyssenKrupp Mexinox S.A. de C.V. and Mexinox USA, Inc.'s cost of

production and certain adjustments made to U.S. price. Consequently, and in accordance with section 751(a)(3)(A) of the Act and 19 CFR 351.213(h)(2), the Department is extending the time limit for completion of the final results of this administrative review until no later than February 2, 2009, which is 180 days from the date of publication of the preliminary results. This notice is published in accordance with section 751(a)(3)(A) of the Act.

Dated: October 7, 2008.

Stephen J. Claeys,

Deputy Assistant Secretary for Import Administration.

[FR Doc. E8-24321 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-DS-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN: 0648-XL16

New England Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The New England Fishery Management Council's (Council) Groundfish Oversight Committee will meet to consider actions affecting New England fisheries in the exclusive economic zone (EEZ).

DATES: The meeting will be held on Thursday, October 30, 2008 at 9 a.m.

ADDRESSES: The meeting will be held at the Sheraton Harborside Hotel, 250 Market Street, Portsmouth, NH 03801; telephone: (603) 431-2300.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Paul J. Howard, Executive Director, New England Fishery Management Council; telephone: (978) 465-0492.

SUPPLEMENTARY INFORMATION: The items of discussion in the committee's agenda are as follows:

The Groundfish Oversight Committee will meet to continue development of Amendment 16 to the Northeast Multispecies Fishery Management Plan (FMP). Amendment 16 will adjust management measures as necessary to continue stock rebuilding. The Committee will finalize its recommendations for measures that will be analyzed in the draft amendment document. They will discuss measures

for both the commercial and recreational components of the fishery at this meeting. This will include recommendations for rebuilding strategies and target fishing mortality rates as well as changes to measures that will achieve the targeted rates. The Committee may also review sector policies, the setting of annual catch limits, accountability measures, and other amendment alternatives. Committee recommendations will be presented to the New England Fishery Management Council at a later meeting.

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Paul J. Howard (see **ADDRESSES**) at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: October 7, 2008.

Tracey L. Thompson,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.
[FR Doc. E8-24215 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-22-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN: 0648-XL15

Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meetings.

SUMMARY: The Pacific Fishery Management Council (Council) and its advisory entities will hold public meetings.

DATES: The Council and its advisory entities will meet November 1–7, 2008. The Council meeting will begin on Sunday, November 2, at 1 p.m., reconvening each day through Friday, November 7. All meetings are open to the public, except a closed session will be held from 1 p.m. until 2 p.m. on Sunday, November 2 to address litigation and personnel matters. The Council will meet as late as necessary each day to complete its scheduled business.

ADDRESSES: The meetings will be held at the Town and Country Resort and Convention Center, 500 Hotel Circle North, San Diego, CA 92108; telephone: (619) 291-7131.

Council address: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220.

FOR FURTHER INFORMATION CONTACT: Dr. Donald O. McIsaac, Executive Director; telephone: (503) 820-2280.

SUPPLEMENTARY INFORMATION: The following items are on the Council agenda, but not necessarily in this order:

- A. Call to Order
- 1. Opening Remarks and Introductions
- 2. Roll Call
- 3. Executive Director's Report
- 4. Approve Agenda
- B. Open Comment Period
- Comments on Non-Agenda Items
- C. Pacific Halibut Management
 - 1. Final Changes to Catch Sharing Plan and Annual Regulations for 2009
 - 2. Pacific Halibut Catch Apportionment Methodology
- D. Salmon Management
 - Salmon Methodology Review
- E. Highly Migratory Species Management
 - 1. National Marine Fisheries Service Report
 - 2. Council Recommendations to the Northern Committee of the Western and Central Pacific Fisheries Commission
 - 3. Final Changes to Routine Management Measures for 2009–2010 Season
- F. Groundfish Management
 - 1. Consideration of Inseason Adjustments
 - 2. National Marine Fisheries Service Report
 - 3. Fishery Management Plan Amendment 20–Trawl Rationalization
 - 4. Final Consideration of Inseason Adjustments (if needed)
- G. Coastal Pelagic Species Management
 - 1. Stock Assessment Review (STAR) Panel Terms of Reference for 2009
 - 2. Pacific Sardine Stock Assessment and Management Measures
- H. Administrative Matters
 - 1. Approval of Council Meeting Minutes
 - 2. Fiscal Matters
 - 3. Membership Appointments and Council Operating Procedures
 - 4. Future Council Meeting Agenda and Workload Planning

SCHEDULE OF ANCILLARY MEETINGS

Saturday, November 1, 2008

Scientific and Statistical Committee

Sunday, November 2, 2008

Council Secretariat

Highly Migratory Species Advisory Subpanel and Highly Migratory Species Management Team (Joint Session)

Scientific and Statistical Committee

Budget Committee

Highly Migratory Species Advisory Subpanel

Highly Migratory Species Management Team

Groundfish Advisory Subpanel

Groundfish Management Team

Annual Chair's Banquet

Monday, November 3, 2008

Council Secretariat

California State Delegation

Oregon State Delegation

Washington State Delegation

Enforcement Consultants

Groundfish Advisory Subpanel

1 p.m.

7 a.m.

8 a.m.

8 a.m.

9 a.m.

10:30 a.m.

10:30 a.m.

1 p.m.

1 p.m.

6 p.m.

7 a.m.

7 a.m.

7 a.m.

7 a.m.

8 a.m.

8 a.m.

SCHEDULE OF ANCILLARY MEETINGS—Continued

Groundfish Management Team	8 a.m.
Highly Migratory Species Advisory Subpanel	8 a.m.
Highly Migratory Species Management Team	8 a.m.
Scientific and Statistical Committee	8 a.m.
Tuesday, November 4, 2008	
Council Secretariat	7 a.m.
California State Delegation	7 a.m.
Oregon State Delegation	7 a.m.
Washington State Delegation	7 a.m.
Enforcement Consultants	8 a.m.
Groundfish Advisory Subpanel	8 a.m.
Groundfish Management Team	8 a.m.
Wednesday, November 5, 2008	
Council Secretariat	7 a.m.
California State Delegation	7 a.m.
Oregon State Delegation	7 a.m.
Washington State Delegation	7 a.m.
Groundfish Advisory Subpanel	8 a.m.
Groundfish Management Team	8 a.m.
Enforcement Consultants	8 a.m.
Thursday, November 6, 2008	
Council Secretariat	7 a.m.
California State Delegation	7 a.m.
Oregon State Delegation	7 a.m.
Washington State Delegation	7 a.m.
Groundfish Advisory Subpanel	8 a.m.
Enforcement Consultants	As needed.
Friday, November 7, 2008	
Council Secretariat	7 a.m.
California State Delegation	7 a.m.
Oregon State Delegation	7 a.m.
Washington State Delegation	7 a.m.

Although non-emergency issues not contained in this agenda may come before this Council for discussion, those issues may not be the subject of formal Council action during this meeting. Council action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Ms. Carolyn Porter at (503) 820-2280 at least 5 days prior to the meeting date.

Dated: October 7, 2008.

Tracey L. Thompson,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.
[FR Doc. E8-24214 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-22-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN: 0648-XL17

Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of a public meeting.

SUMMARY: The Pacific Fishery Management Council's (Council) Salmon Advisory Subpanel (SAS) will hold a work session by telephone conference, which is open to the public, to develop recommendations for the November 2008 Council meeting.

DATES: The telephone conference will be held Thursday, October 30, from 9 a.m. to 11 a.m.

ADDRESSES: A listening station will be available at the Pacific Fishery Management Council, Small Conference Room, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220-1384; telephone: (503) 820-2280.

Council address: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220-1384.

FOR FURTHER INFORMATION CONTACT: Mr. Chuck Tracy, Salmon Management Staff Officer, Pacific Fishery Management Council: (503) 820-2280.

SUPPLEMENTARY INFORMATION: The purpose of the work session is to review information in the Council's November meeting briefing book related to salmon management, and to develop comments and recommendations for consideration at the November Council meeting.

Although non-emergency issues not contained in the meeting agenda may come before the SAS for discussion, those issues may not be the subject of formal SAS action during this meeting. SAS action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the SAS's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Ms. Carolyn Porter at (503) 820-2280 at least 5 days prior to the meeting date.

Dated: October 7, 2008.

Tracey L. Thompson,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.
[FR Doc. E8-24224 Filed 10-10-08; 8:45 am]

BILLING CODE 3510-22-S

DEPARTMENT OF DEFENSE

Office of the Secretary

Membership of the Office of the Secretary of Defense Performance Review Board

AGENCY: Department of Defense.

ACTION: Notice.

SUMMARY: This notice announces the appointment of the members of the Performance Review Board (PRB) of the Office of the Secretary of Defense, to include the Joint Staff, the U.S. Mission to the North Atlantic Treaty Organization, Defense Field Activities, the U.S. Court of Appeals of the Armed Forces and the following Defense Agencies: Defense Advance Research Projects Agency, Defense Contract Management Agency, Defense Commissary Agency, Defense Security Service, Defense Security Cooperation Agency, Defense Business Transformation Agency, Defense Legal Services Agency, and Pentagon Force Protection Agency. The publication of PRB membership is required by 5 U.S.C. 4314(c)(4). The Performance Review Board (PRB) provides fair and impartial review of Senior Executive and Senior Professional performance appraisals and makes recommendations regarding performance ratings and performance awards to the Secretary of Defense.

DATES: *Effective Date:* October 27, 2008.

FOR FURTHER INFORMATION CONTACT:

Jennifer Prater, Executive and Political Personnel Division, Human Resources Directorate, Washington Headquarters Services, Office of the Secretary of Defense, Department of Defense, The Pentagon, (703) 693-8419.

SUPPLEMENTARY INFORMATION: In accordance with 5 U.S.C. 4314(c)(4), the following executives are appointed to the Office of the Secretary of Defense PRB with specific PRB panel assignments being made from this group:

Office of the Secretary of Defense

Eric Coulter, Chairperson; Frank Anderson; Steve Austin; Pamela Bain; Regina Belguitti; Gary Bliss; William Carr; Shannon Cuniff; Steve Daly; Michael Dumont; Joyce France; Dan Gardner; Curt Gilroy; Craig Glassner; Paul Grant; Bonnie Hammersley; John

Hill; Tim Hoffman; Steve Huybrechts; Jay Kistler; Paul Koffsky; William Lowry; Robert McNamara; Lydia Moschkin; Patrick O'Brien; Diana Ohman; Linda Oliver; Michael Ponti; Cheryl Roby; Robert Salesses; Richard Sayre; Alan Shaffer; Elaine Simmons; Mary Snaveley-Dixon; Frances Sullivan; Richard Sylvester; Andre Van Tilborg; Patricia Walker; Michael Williams; and, Susan Yarwood.

Executives listed will serve a one-year renewable term, effective October 27, 2008.

Dated: October 6, 2008.

Morgan E. Frazier,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. E8-24332 Filed 10-10-08; 8:45 am]

BILLING CODE 5001-06-P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Meeting of the Board of Visitors of Marine Corps University

AGENCY: Department of the Navy, DoD.

ACTION: Notice.

SUMMARY: The Board of Visitors of the Marine Corps University (BOV MCU) will meet to review, develop and provide recommendations on all aspects of the academic and administrative policies of the University; examine all aspects of professional military education operations; and provide such oversight and advice, as is necessary, to facilitate high educational standards and cost effective operations. The Board will be focusing primarily on the growth of Marine Corps University with a view to the future. All sessions of the meeting will be open to the public.

DATES: The meeting will be held on Thursday, November 13, 2008 from 8 a.m. to 4 p.m. and on Friday, November 14, 2008 from 8 a.m. to 11 a.m.

ADDRESSES: The meeting will be held at Marine Corps University's Gray Research Center. The address is: 2040 Broadway Street, Quantico, Virginia 22134.

FOR FURTHER INFORMATION CONTACT:

Mary Lanzillotta, Executive Secretary, Marine Corps University Board of Visitors, 2076 South Street, Quantico, Virginia 22134, *telephone:* 703-784-4037.

Dated: October 3, 2008.

T. M. Cruz,

Lieutenant Commander, Judge Advocate General's Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. E8-24247 Filed 10-10-08; 8:45 am]

BILLING CODE 3810-FF-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 184-166]

El Dorado Irrigation District; Notice of Application for Amendment of License and Soliciting Comments, Motions To Intervene, and Protests

October 3, 2008.

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Application Type:* Request for Approval of an Interim Streamflow Release Plan for Caples Creek.

b. *Project No:* 184-166.

c. *Date Filed:* September 19, 2008.

d. *Applicant:* El Dorado Irrigation District.

e. *Name of Project:* El Dorado Hydroelectric Project.

f. *Location:* On the South Fork American River and its tributaries, in El Dorado, Alpine, and Amador Counties, California. The project occupies federal lands managed by the U.S. Forest Service.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791a-825r.

h. *Applicant Contact:* Mr. Steve Setoodeh, Department Head, Facilities Management, El Dorado Irrigation District, 2890 Mosquito Road, Placerville, California 95667; (530) 622-4513.

i. *FERC Contact:* Philip Scordelis; (415) 369-3335;

philip.scordelis@ferc.gov.

j. *Deadline for filing comments, motions to intervene, and protest:* November 3, 2008.

All documents (original and eight copies) should be filed with: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

The Commission's Rules of Practice and Procedure require all interveners filing documents with the Commission to serve a copy of that document on each person whose name appears on the official service list for the project. Further, if an intervener files comments or documents with the Commission relating to the merits of an issue that

may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency. A copy of any motion to intervene must also be served upon each representative of the Applicant specified in the particular application.

k. *Description of Request:* The El Dorado Irrigation District seeks approval of an interim streamflow release plan for Caples Creek to be in effect until April 30, 2009. Repairs to the outlet gates at Caples Lake Dam required the drawdown of the lake to levels that prevent the release of license-required minimum streamflows until the reservoir refills in the Spring 2009.

l. *Location of the Application:* The filing is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street, NE., Room 2A, Washington, DC 20426, or by calling (202) 502-8371. This filing may also be viewed on the Commission's Web site at <http://www.ferc.gov> using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. You may also register online at <http://www.ferc.gov/docsfiling/esubscription.asp> to be notified via e-mail of new filings and issuances related to this or other pending projects. For assistance, call 1-866-208-3676 or e-mail FERCOnlineSupport@ferc.gov, for TTY, call (202) 502-8659. A copy is also available for inspection and reproduction at the address in item (h) above.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions to Intervene:* Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, 211, 214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. Any filings must bear in all capital letters the title "COMMENTS", "PROTEST", or "MOTION TO INTERVENE", as applicable, and the Project Number of the particular application to which the filing refers.

p. *Agency Comments:* Federal, state, and local agencies are invited to file comments on the described application. A copy of the application may be obtained by agencies directly from the Applicant. If an agency does not file comments within the time specified for filing comments, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

q. Comments, protests and interventions may be filed electronically via the Internet in lieu of paper. See, 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site at <http://www.ferc.gov> under the "e-Filing" link.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24274 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings, #1

October 03, 2008.

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC02-91-003, EL02-105-003.

Applicants: UBS AG.

Description: Request for Clarification of UBS AG.

Filed Date: 06/30/2008.

Accession Number: 20080630-5158.

Comment Date: 5 p.m. Eastern Time on Tuesday, October 14, 2008.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER08-1522-000.

Applicants: WG Energy, LLC.

Description: WG Energy, LLC submits petition for acceptance of initial tariff, waivers and blanket authority and requests acceptance of FERC Electric Tariff, Original Volume 1.

Filed Date: 09/30/2008.

Accession Number: 20081003-0101.

Comment Date: 5 p.m. Eastern Time on Tuesday, October 21, 2008.

Docket Numbers: ER08-1542-000.

Applicants: U.S. Gas and Electric, Inc.

Description: U.S. Gas and Electric, Inc. submits a motion to withdraw filing.

Filed Date: 10/02/2008.

Accession Number: 20081003-0219.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER08-1584-001.

Applicants: Black Hills Power, Inc.

Description: Black Hills Power, Inc. submits a supplement to their September 29th filing to submit affidavits from Alan C. Heintz and William E. Avera verifying their respective testimonies.

Filed Date: 10/01/2008.

Accession Number: 20081003-0048.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-1-000.

Applicants: Majestic Wind Power LLC.

Description: Majestic Wind Power LLC requesting that the FERC accept for filing Applicant's FERC Electric Tariff, Original Volume 1 etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0104.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-2-000.

Applicants: Butler Ridge, LLC.

Description: Butler Ridge, LLC requests FERC accept for filing their FERC Electric Tariff, Original Volume 1 etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0105.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-3-000.

Applicants: Wessington Wind I LLC.

Description: Wessington Wind I LLC submits an application for FERC Electric Tariff, Original Volume No. 1 etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0102.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-4-000.

Applicants: Krayn Wind LLC.

Description: Petition of Krayn Wind LLC for a Order Accepting Market-Based Rate Tariff for Filing and Granting Waivers and Blanket Approvals, effective 11/1/08.

Filed Date: 10/01/2008.

Accession Number: 20081003-0103.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-6-000.

Applicants: Wisconsin Power and Light Company.

Description: Wisconsin Power and Light Co submits proposed additions to their book depreciation rates to reflect new wind electric generation production plant.

Filed Date: 10/01/2008.

Accession Number: 20081003-0106.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-7-000.

Applicants: Southwest Power Pool, Inc.

Description: Southwest Power Pool, Inc submits two executed Service Agreements for Resale, Reassignment or Transfer etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0107.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-8-000.

Applicants: Southern Company Services, Inc.

Description: Alabama Power Co et al submit an Informational Filing in order to update the cost components under their Open Access Transmission Tariff (FERC Electric Tariff, Fourth Revised Volume 5).

Filed Date: 10/01/2008.

Accession Number: 20081003-0108.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Any person desiring to intervene or to protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214) on or before 5 p.m. Eastern time on the specified comment date. It is not necessary to separately intervene again in a subdocket related to a compliance filing if you have previously intervened in the same docket. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant. In reference to filings initiating a new proceeding, interventions or protests submitted on or before the comment deadline need not be served on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First St. NE., Washington, DC 20426.

The filings in the above proceedings are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the

Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24246 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings, #1

October 7, 2008.

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC09-1-000.

Applicants: American Electric Power Service Corporation.

Description: American Electric Power submits a Request for Disclaimer of Jurisdiction or, in the Alternative Application for Approvals under section 203 of the Federal Power Act, Request for Expedited Consideration and Request for Confidential Treatment.

Filed Date: 10/01/2008.

Accession Number: 20081003-0030.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG09-2-000.

Applicants: Krayn Wind LLC.

Description: Krayn Wind, LLC submits a notice of self-certification of exempt wholesale generator status.

Filed Date: 10/01/2008.

Accession Number: 20081003-0047.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER00-2117-006;

ER00-2118-006; ER00-3751-006;

ER02-24-011; ER01-389-009; ER92-

521-003; ER07-400-002; ER08-1236-

002; ER93-493-018; ER02-26-010;

ER02-25-009.

Applicants: ANP Bellingham Energy Company LLC, ANP Blackstone Energy Company, LLC, ANP Funding I, LLC, Armstrong Energy Limited Partnership, LLLP, Calumet energy Team, LLC, Hartwell energy Limited Partnership,

IPA Marketing, Inc., IPA Trading, Inc., Milford Power Limited Partnership, Pleasants Energy, LLC, Troy Energy, LLC.

Description: IPA Entities submits Troy market-based rate tariff, as well as a redlined version of that tariff highlighting the changes Troy made in compliance with Order 697 and 697-A.

Filed Date: 10/01/2008.

Accession Number: 20081003-0024.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER06-613-006.

Applicants: ISO New England Inc. and New England Power Pool.

Description: ISO New England Inc. submits a report on the status of stakeholder consideration of the possible implementation in New England of a forward Ten-Minute Spinning Reserve.

Filed Date: 10/01/2008.

Accession Number: 20081003-0028.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER06-1512-001; ER06-1512-002.

Applicants: Verso Androscoggin LLC.

Description: Verso Androscoggin LLC submits a revised Appendix B Analysis and amends the effective date provision in its market-based rate tariff.

Filed Date: 10/01/2008.

Accession Number: 20081003-0025.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 15, 2008.

Docket Numbers: ER08-1244-000.

Applicants: Midwest Independent Transmission System Operator, Inc.

Description: Motion to withdraw the 7/9/08 filing of proposed revisions and amendments made to Open Access Transmission & Energy Markets Tariff of the Midwest Independent Transmission System Operator, Inc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0307.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER08-1272-001.

Applicants: New York Independent System Operator, Inc.

Description: New York Independent System Operator, Inc submits revisions to the Headroom cost allocation methodology contained in it's Open Access Transmission Tariff Attachment S.

Filed Date: 10/03/2008.

Accession Number: 20081006-0169.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Docket Numbers: ER08-1584-002.

Applicants: Black Hills Power, Inc.

Description: Black Hills Power, Inc submits revised pages comprising Attachment N, in clean and blacklined

formats to supplement its September 29, 2008 filing.

Filed Date: 10/02/2008.

Accession Number: 20081006-0168.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-5-000.

Applicants: ISO New England Inc. and New England Power Pool.

Description: ISO New England and the NEPOOL Participants Committee submits Second Revised Sheet 7011H et al. to FERC Electric Tariff 3 and supporting testimony of Henry Y Yoshimura.

Filed Date: 10/01/2008.

Accession Number: 20081003-0109.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-9-000.

Applicants: Carolina Power & Light Company.

Description: Carolina Power & Light Company submits a Partial Requirements Service Agreement with Haywood Electric Membership Corp, Rate Schedule 180.

Filed Date: 10/01/2008.

Accession Number: 20081003-0113.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-10-000.

Applicants: ISO New England Inc. and New England Power Pool.

Description: ISO New England Inc et al. submit revised tariff sheets and supporting testimony of Donald L Gates to reflect or discuss proposed revisions to the ISO New England Information Policy.

Filed Date: 10/01/2008.

Accession Number: 20081003-0112.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-11-000;

OA08-13-003; RM05-5-005.

Applicants: New York Independent System Operator, Inc.

Description: New York Independent System Operator, Inc submits amendments to one aspect of its 6/6/08 compliance filing etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0029.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-12-000.

Applicants: American Electric Power Service Corporation, Public Service Company of Oklahoma, and Southwestern Electric Power Company.

Description: American Electric Power Service Corp on behalf of Public Service Co of Oklahoma et al. submits a compliance filing supporting changes in the accounting for transmission and distribution plant-in-service etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0212.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-13-000.

Applicants: PJM Interconnection, L.L.C.

Description: PJM Interconnection, LLC submits amendments to the PJM Open Access Transmission Tariff etc.

Filed Date: 10/01/2008.

Accession Number: 20081003-0114.

Comment Date: 5 p.m. Eastern Time on Wednesday, October 22, 2008.

Docket Numbers: ER09-14-000.

Applicants: NSTAR Electric Company.

Description: NSTAR Electric Company submits an application seeking return on equity incentives for their 345 kV Transmission Reliability Project and three separate transmission projects collectively referred to as the SEMA Upgrades.

Filed Date: 10/02/2008.

Accession Number: 20081006-0101.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-16-000.

Applicants: Southern California Edison Company.

Description: Southern California Edison Co submits the Engineering, Design, Procurement and Construction Letter Agreement with the City of Vernon.

Filed Date: 10/02/2008.

Accession Number: 20081003-0116.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-17-000.

Applicants: Duke Energy Business Services, LLC, Duke Energy Indiana, Inc., Duke Energy Ohio, Inc.

Description: Duke Energy Business Services, LLC on behalf of Duke Energy Indiana, Inc et al. submits Notices of Cancellation of Rate Schedules 208 and 254 et al.

Filed Date: 10/02/2008.

Accession Number: 20081003-0117.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-18-000.

Applicants: PJM Transmission Owners.

Description: PJM Transmission Owners submit revised tariff sheets to Rate Schedule 42.

Filed Date: 10/02/2008.

Accession Number: 20081003-0115.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-21-000.

Applicants: American Transmission Systems, Inc.

Description: American Transmission Systems, Incorporated submits a Notice

of Cancellation for the Generator Interconnection and Operating Agreement with Calpine Corporation, as successor in interest to Fremont Energy Center, LLC.

Filed Date: 10/02/2008.

Accession Number: 20081006-0063.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-22-000.

Applicants: California Independent System Operator Corporation.

Description: California Independent System Operator Corp submits notice of termination of the Scheduling Coordinator Agreement of Lehman Brothers Commodity Services, Inc.

Filed Date: 10/02/2008.

Accession Number: 20081006-0062.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-23-000.

Applicants: Florida Power & Light Company.

Description: Florida Power & Light Co submits a power sales agreement with Seminole Electric Coop, Inc as Service Agreement 91 under FERC Electric Tariff 8.

Filed Date: 10/02/2008.

Accession Number: 20081006-0064.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-24-000.

Applicants: Midwest Independent Transmission System Operator, Inc.

Description: Midwest Independent Transmission System Operator, Inc submits its proposed revisions to its Open Access Transmission, Energy and Operating Reserve Markets Tariff to address needless occurrences of scarcity pricing observed during the Ancillary Service Market operational testing.

Filed Date: 10/02/2008.

Accession Number: 20081006-0065.

Comment Date: 5 p.m. Eastern Time on Thursday, October 23, 2008.

Docket Numbers: ER09-25-000.

Applicants: Midwest Independent Transmission System Operator, Inc.

Description: Midwest Independent Transmission System Operator, Inc submits an executed Amended and restated Large Generator Interconnection Agreement with Valley View Transmission, LLC.

Filed Date: 10/03/2008.

Accession Number: 20081006-0066.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Docket Numbers: ER09-26-000.

Applicants: PJM Interconnection, L.L.C.

Description: PJM Interconnection, LLC submits modifications to its Open Access Transmission Tariff and Reliability Assurance Agreement etc.

Filed Date: 10/03/2008.

Accession Number: 20081006-0067.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Docket Numbers: ER09-27-000.

Applicants: PJM Interconnection, L.L.C.

Description: PJM Interconnection, LLC submits a revised interconnection service agreement and a revised interconnection construction service agreement among PJM, Congentrix Virginia Leasing Corporation and Virginia Electric and Power.

Filed Date: 10/03/2008.

Accession Number: 20081006-0061.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Docket Numbers: ER09-28-000.

Applicants: Constellation Energy Commodities Group, Inc.

Description: Constellation Energy Commodities Group, Inc requests a waiver of the Commission affiliate sales restrictions effective 10/3/08, with respect to power sales by Constellation to PacifiCorp relating to the West Valley Facility.

Filed Date: 10/03/2008.

Accession Number: 20081006-0170.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Docket Numbers: ER09-29-000.

Applicants: Allegheny Energy Supply Company, LLC.

Description: Allegheny Energy Supply Company, LLC requests authorization to make wholesale power sales to its affiliate Potomac Edison Company pursuant to the terms of a master Full Requirements Service Agreement etc.

Filed Date: 10/03/2008.

Accession Number: 20081006-0171.

Comment Date: 5 p.m. Eastern Time on Friday, October 24, 2008.

Any person desiring to intervene or to protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214) on or before 5 p.m. Eastern time on the specified comment date. It is not necessary to separately intervene again in a subdocket related to a compliance filing if you have previously intervened in the same docket. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Anyone filing a motion to intervene or protest must serve a copy of that document on the applicant. In reference to filings initiating a new proceeding, interventions or protests submitted on or before the comment deadline need not be served on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at <http://www.ferc.gov>. To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First St., NE., Washington, DC 20426.

The filings in the above proceedings are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24298 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. EF08-4081-000]

Southwestern Power Administration; Notice of Filing

October 3, 2008.

Take notice that on September 26, 2008, the Deputy Secretary, U.S. Department of Energy, pursuant to the authority vested on the Deputy Secretary by the Department of Energy's Delegation Order Nos. 00-001.00B (2005) and 00-037.00 (201), and by sections 301(b), 302(a), 402(e), 641, 642, 643, and 644, of the Department of Energy Organization Act (Pub. L. 95-91), submitted final confirmation, approval, and placed in effect on an interim basis for period October 1, 2008, through September 30, 2012, the Southwestern Power Administration Power Rate for the Robert Douglas Willis Hydropower Project.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the "eFiling" link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at <http://www.ferc.gov>, using the "eLibrary" link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an "eSubscription" link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail FERCOnlineSupport@ferc.gov, or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5 p.m. Eastern Time on October 27, 2008.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24275 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. IS08-405-000]

Dixie Pipeline Company; Notice of Technical Conference

October 3, 2008.

Take notice that the Commission will convene a technical conference in the above-referenced proceeding on Thursday, October 23, 2008, at 9 a.m. (EDT), in a room to be designated at the offices of the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

The Commission's August 22, 2008 Order¹ directed that a technical conference be held to address Dixie's FERC Nos. 92 and 93, which would permit batched shipping of refinery grade propylene on the Dixie pipeline.

FERC conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations please send an e-mail to accessibility@ferc.gov or call toll free 1-866-208-3372 (voice) or (202) 208-1659 (TTY), or send a FAX to (202) 208-2106 with the required accommodations.

All parties and staff are permitted to attend. For further information please contact Jenifer Lucas at (202) 502-8362 or Jenifer.Lucas@ferc.gov.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24276 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. AD08-13-000]

Transmission Barriers to Entry; Supplemental Notice of Technical Conference

October 3, 2008.

On September 24, 2008, the Commission issued a Notice (September 24 Notice) scheduling a technical conference in the above-captioned proceeding. As stated in the September 24 Notice, this conference is to explore barriers to transmission development. The technical conference will be held on October 14, 2008, from 1 p.m. to 5 p.m. (EST), in the Commission Meeting Room at the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426. The conference will be open for the public to attend and advance registration is not required. Members of the Commission may attend the conference.

If any changes occur, the revised agenda will be posted on the calendar page for this event on the Commission's Web site, <http://www.ferc.gov>, prior to the event.

A free Webcast of this event is available through <http://www.ferc.gov>. Anyone with internet access who desires to view this event can do so by navigating to the Calendar of Events at <http://www.ferc.gov> and locating this event in the Calendar. The event will

contain a link to its Webcast. The Capitol Connection provides technical support for the free Webcasts. It also offers access to this event via television in the Washington, DC area and via phone-bridge for a fee. If you have any questions, visit <http://www.CapitolConnection.org> or contact Danelle Springer or David Reininger at (703) 993-3100.

All interested persons may file written comments following the technical conference on or before November 13, 2008.

Commission conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations, please send an e-mail to accessibility@ferc.gov or call toll free 1-866-208-3372 (voice) or 202-208-1659 (TTY), or send a FAX to 202-208-2106 with the required accommodations.

For more information about this conference, please contact: Katie Detweiler, 202-502-6424, katie.detweiler@ferc.gov or Sarah McKinley, 202-502-8368, sarah.mckinley@ferc.gov.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. E8-24277 Filed 10-10-08; 8:45 am]

BILLING CODE 6717-01-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-8728-8]

Agency Information Collection Activities OMB Responses

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: This document announces the Office of Management and Budget's (OMB) responses to Agency Clearance requests, in compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

FOR FURTHER INFORMATION CONTACT: Rick Westlund (202) 566-1682, or e-mail at westlund.rick@epa.gov and please refer to the appropriate EPA Information Collection Request (ICR) Number.

SUPPLEMENTARY INFORMATION:

OMB Responses to Agency Clearance Requests

OMB Approvals

EPA ICR Number 2289.01; National Volatile Organic Compound (VOC) Emission Standards for Aerosol Coatings (40 CFR part 59, subpart E) (Final Rule); in 40 CFR part 59, subpart E; was approved 09/16/2008; OMB Number 2060-0617; expires 09/30/2011.

EPA ICR Number 2031.03; Protection of Stratospheric Ozone: Request for Applications from Critical Use Exemption for the Phaseout of Methyl Bromide (Renewal); in 40 CFR part 82; was approved 10/03/2008; OMB Number 2060-0617; expires 10/31/2011.

Disapproval

EPA ICR Number 2254.01; Responsible Appliance Disposal Program; was disapproved 09/21/2008.

Short Term Extensions of Expiration Date

EPA ICR Number 1680.04; Combined Sewer Overflow Control Policy; a short term extension of the expiration date was granted by OMB on 09/25/2008; OMB Number 2040-0170; expires 12/31/2008.

EPA ICR Number 0229.17; NPDES and Sewage Sludge Monitoring Reports; a short term extension of the expiration date was granted by OMB on 09/25/2008; OMB Number 2040-0004; expires 12/31/2008.

EPA ICR Number 0270.42; Public Water System Supervision Program; a short term extension of the expiration date was granted by OMB on 09/30/2008; OMB Number 2040-0090; expires 12/31/2008.

EPA ICR Number 1895.03; Microbial Rules; a short term extension of the expiration date was granted by OMB on 10/01/2008; OMB Number 2040-0205; expires 12/31/2008.

EPA ICR Number 0922.07; Data Call-ins for the Special Review and Registration Review Programs; a short term extension of the expiration date was granted by OMB on 09/30/2008; OMB Number 2070-0057; expires 12/31/2008.

EPA ICR Number 1504.05; Data Generation for Pesticide Reregistration; a short term extension of the expiration date was granted by OMB on 09/30/2008; OMB Number 2070-0107; expires 12/31/2008.

EPA ICR Number 1911.02; Data Acquisition for Anticipated Residue and Percent of Crop Treated; a short term extension of the expiration date was granted by OMB on 09/30/2008; OMB Number 2070-0164; expires 12/31/2008.

¹ Dixie Pipeline Company, 124 FERC ¶ 61,175 (2008).

Dated: October 7, 2008.

Sara Hisel-McCoy,

Director, Collection Strategies Division.

[FR Doc. E8-24273 Filed 10-10-08; 8:45 am]

BILLING CODE 6560-50-P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection(s) Being Reviewed by the Federal Communications Commission, Comments Requested

October 7, 2008.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and other Federal agencies to take this opportunity to comment on the following information collection(s), as required by the Paperwork Reduction Act of 1995 (PRA), Public Law No. 104-13. An agency may not conduct or sponsor a collection of information unless it displays a currently valid control number. Subject to the PRA, no person shall be subject to any penalty for failing to comply with a collection of information that does not display a valid control number. Comments are requested concerning (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. **DATES:** Written PRA comments should be submitted on or before December 15, 2008. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Interested parties may submit all PRA comments by e-mail or U.S. post mail. To submit your comments by e-mail, send them to PRA@fcc.gov and/or to Cathy.Williams@fcc.gov. To submit your comments by U.S. mail, mark them to the attention of Cathy Williams, Federal Communications Commission, Room 1-C823, 445 12th Street, SW., Washington, DC 20554.

FOR FURTHER INFORMATION CONTACT: For additional information about the

information collection(s), contact Cathy Williams at (202) 418-2918 or send an e-mail to PRA@fcc.gov and/or Cathy.Williams@fcc.gov.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060-0991.

Title: AM Measurement Data.

Form Number: Not applicable.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for profit entities.

Number of Respondents and

Responses: 1,900 respondents; 4,568 responses.

Obligation to Respond: Required to obtain benefits. The statutory authority for this collection of information is contained in Sections 1, 4(i) 303, 308, 309, 310, and 319 of the Communications Act of 1934, as amended.

Estimated Time per Response: 0.5-25 hours.

Frequency of Response:

Recordkeeping requirement; Third party disclosure requirement; On occasion reporting requirement.

Total Annual Burden: 30,795 hours.

Total Annual Costs: \$829,000.

Nature and Extent of Confidentiality:

There is no need for confidentiality with this information collection.

Privacy Act Impact Assessment: No impact(s).

Needs and Uses: On September 24, 2008, the Commission adopted the Second Report and Order and Second Further Notice of Proposed Rulemaking. In the Matter of An Inquiry Into the Commission's Policies and Rules Regarding AM Radio Service Directional Antenna Performance Verification, MM Docket No. 93-177, FCC 08-228. The Second Report and Order permits AM stations using directional antennas to use computer modeling techniques to verify AM directional antenna performance, thereby reducing the regulatory burden on these stations.

Directional AM stations use antennas which suppress radiated field in some directions and enhance it in others. Under our current rules, an AM licensee operating with a directional antenna must perform a proof of performance to demonstrate that the antenna pattern conforms to the station's authorization. An AM station must perform a full proof to verify the pattern shape when a new directional antenna system is authorized. Partial proofs, which require fewer measurements, are occasionally necessary to show that an array continues to operate properly. Typically, a full proof requires measurement of the AM station's field strength on six to 12 critical bearings,

ranging to distances of 15 kilometers or more from the antenna. Subsequent graphical analysis of proof measurements also requires substantial time and expense. In contrast, the computer modeling techniques authorized in the Second Report and Order are based on internal measurements, making the proof process less time-consuming and expensive for AM licensees.

In order to control interference between stations and assure adequate community coverage, AM stations must conduct various engineering measurements to demonstrate that the antenna system operates as authorized. The following rule sections are included in this collection.

The revised information collection requirements are as follows:

47 CFR 73.61(a) states each AM station using a directional antenna with monitoring point locations specified in the instrument of authorization must make field strength measurements at the monitoring point locations specified in the instrument of authorization, as often as necessary to ensure that the field at those points does not exceed the values specified in the station authorization. Additionally, stations not having an approved sampling system must make the measurements once each calendar quarter at intervals not exceeding 120 days. The provision of this paragraph supersedes any schedule specified on a station license issued prior to January 1, 1986. The results of the measurements are to be entered into the station log pursuant to the provisions of §§ 73.1820.

47 CFR 73.61(b) states if the AM license was granted on the basis of field strength measurements performed pursuant to Sec. 73.151(a), partial proof of performance measurements using the procedures described in Sec. 73.154 must be made whenever the licensee has reason to believe that the radiated field may be exceeding the limits for which the station was most recently authorized to operate.

47 CFR 73.68(c) states a station having an antenna sampling system constructed according to the specifications given in paragraph (a) of this section may obtain approval of that system by submitting an informal letter request to the FCC in Washington, DC, Attention: Audio Division, Media Bureau. The request for approval, signed by the licensee or authorized representative, must contain sufficient information to show that the sampling system is in compliance with all requirements of paragraph (a) of this section.

47 CFR 73.68(d) states in the event that the antenna monitor sampling

system is temporarily out of service for repair or replacement, the station may be operated, pending completion of repairs or replacement, for a period not exceeding 120 days without further authority from the FCC if all other operating parameters and the field monitoring point values are within the limits specified on the station authorization.

47 CFR 73.68(e)(1) Special Temporary Authority (see Sec. 73.1635) shall be requested and obtained from the Commission's Audio Division, Media Bureau in Washington to operate with parameters at variance with licensed values pending issuance of a modified license specifying parameters subsequent to modification or replacement of components.

47 CFR 73.68(e)(4) states request for modification of license shall be submitted to the FCC in Washington, DC, within 30 days of the date of sampling system modification or replacement. Such request shall specify the transmitter plate voltage and plate current, common point current, base currents and their ratios, antenna monitor phase and current indications, and all other data obtained pursuant to this paragraph.

47 CFR 73.68(f) states if an existing sampling system is found to be patently of marginal construction, or where the performance of a directional antenna is found to be unsatisfactory, and this deficiency reasonably may be attributed, in whole or in part, to inadequacies in the antenna monitoring system, the FCC may require the reconstruction of the sampling system in accordance with requirements specified above.

47 CFR 73.151(c)(1)(ix) states the orientation and distances among the individual antenna towers in the array shall be confirmed by a post-construction certification by a land surveyor (or, where permitted by local regulation, by an engineer) licensed or registered in the state or territory where the antenna system is located.

47 CFR 73.151(c)(2)(i) describes techniques for moment method modeling, sampling system construction, and measurements that must be taken as part of a moment method proof. A description of the sampling system and the specified measurements must be filed with the license application.

47 CFR 73.151(c)(3) states reference field strength measurement locations shall be established in directions of pattern minima and maxima. On each radial corresponding to a pattern minimum or maximum, there shall be at least three measurement locations. The field strength shall be measured at each

reference location at the time of the proof of performance. The license application shall include the measured field strength values at each reference point, along with a description of each measurement location, including GPS coordinates and datum reference.

47 CFR 73.155 states a station licensed with a directional antenna pattern pursuant to a proof of performance using moment method modeling and internal array parameters as described in § 73.151(c) shall recertify the performance of that directional antenna pattern at least once within every 24 month period.

47 CFR 73.155(c) states the results of the periodic directional antenna performance recertification measurements shall be retained in the station's public inspection file. The existing information collection requirements for this information collection are as follows:

47 CFR Section 73.54(c) requires that AM licensees file a letter notification with the FCC when determining power by the direct method. In addition, Section 73.54(c) requires that background information regarding antenna resistance measurement data for AM stations must be kept on file at the station.

47 CFR Section 73.54(d) requires AM stations using direct reading power meters to either submit the information required by (c) or submit a statement indicating that such a meter is being used.

47 CFR Section 73.61(c) requires a station may be directed to make a partial proof of performance by the FCC whenever there is an indication that the antenna is not operating as authorized.

47 CFR Section 73.62(b) requires an AM station with a directional antenna system to measure and log every monitoring point at least once for each mode of directional operation within 24 hours of detection of variance of operating parameters from allowed tolerances.

47 CFR Section 73.69(c) requires AM station licensees with directional antennas to file an informal request to operate without required monitors with the Media Bureau in Washington, D.C., when conditions beyond the control of the licensee prevent the restoration of an antenna monitor to service within a 120 day period. This request is filed in conjunction with Section 73.3549.

47 CFR Section 73.69(d)(1) requires that AM licensees with directional antennas request to obtain temporary authority to operate with parameters at variance with licensed values when an authorized antenna monitor is replaced

pending issuance of a modified license specifying new parameters.

47 CFR Section 73.69(d)(5) requires AM licensees with directional antennas to submit an informal request for modification of license to the FCC within 30 days of the date of antenna monitor replacement.

47 CFR Section 73.154 requires the result of the most recent partial proof of performance measurements and analysis to be retained in the station records and made available to the FCC upon request. Maps showing new measurement points shall be associated with the partial proof in the station's records and shall be made available to the FCC upon request.

47 CFR Section 73.158(b) requires a licensee of an AM station using a directional antenna system to file a request for a corrected station license when the description of monitoring point in relation to nearby landmarks as shown on the station license is no longer correct due to road or building construction or other changes. A copy of the monitoring point description must be posted with the existing station license.

47 CFR Section 73.3538(b) requires a broadcast station to file an informal application to modify or discontinue the obstruction marking or lighting of an antenna supporting structure.

47 CFR Section 73.3549 requires licensees to file with the FCC requests for extensions of authority to operate without required monitors, transmission system indicating instruments, or encoders and decoders for monitoring and generating the Emergency Alert System codes. Such requests must contain information as to when and what steps were taken to repair or replace the defective equipment and a brief description of the alternative procedures being used while the equipment is out of service.

Federal Communications Commission.

Marlene H. Dortch,
Secretary.

[FR Doc. E8-24316 Filed 10-10-08; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

[WC Docket No. 05-195; FCC 08-189]

Comprehensive Review of the Universal Service Fund Management, Administration, and Oversight

AGENCY: Federal Communication Commission.

ACTION: Notice of Inquiry.

SUMMARY: In this document, we seek comment on ways to further strengthen

management, administration, and oversight of the Universal Service Fund ("USF" or "Fund"), how to define more clearly the goals of the USF, and to identify any additional quantifiable performance measures that may be necessary or desirable. We also seek comment on whether and, if so, to what extent the Commission's oversight of the USF can be improved. In conducting this inquiry, we plan to build upon the comprehensive audit oversight conducted by the Commission's Inspector General in 2007.

DATES: Submit comments on or before November 13, 2008; reply comments on or before December 15, 2008.

ADDRESSES: You may submit comments, identified by WC Docket No. 05–195, by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow instructions for submitting comments.

- *Federal Communications Commission's Web Site:* <http://www.fcc.gov/cgb/ecfs/>. Follow instructions for submitting comments.

- U.S. Postal Service first class, Express, and priority mail should be addressed to 445 12th Street, SW., Washington, DC 20554.

- *People with Disabilities:* Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202–418–0530 or TTY: 202–418–0432.

For detailed instructions for submitting comments, see the **SUPPLEMENTARY INFORMATION** section of this document.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Inquiry, WC Docket No. 05–195, adopted August 15, 2008 and released September 12, 2008. The complete text of this document is available for public inspection and copying during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW., Room CY–A257, Washington, DC 20554. In addition, the complete text of this document is available at <http://www.fcc.gov/headlines.html>. The text may also be purchased from the Commission's duplicating inspection and copying during regular business hours at the contractor, Best Copy and Printing, Inc., Portals II, 445 12th Street, SW., Room CY–B402, Washington, DC 20554, telephone (202) 488–5300 or (800) 378–3160, facsimile (202) 488–5563, or via e-mail <http://www.bcpweb.com>.

I. Introduction

1. In this Notice of Inquiry ("NOI"), we seek comment on ways to further

strengthen management, administration, and oversight of the Universal Service Fund ("USF" or "Fund"), how to define more clearly the goals of the USF, and to identify any additional quantifiable performance measures that may be necessary or desirable. We also seek comment on whether and, if so, to what extent the Commission's oversight of the USF can be improved. In conducting this inquiry, we plan to build upon the comprehensive audit oversight conducted by the Commission's Inspector General in 2007.

2. Our primary goal in initiating this NOI is to ensure sufficient safeguards are in place for the USF to operate as Congress intended. In recent years, the Commission has undertaken a series of steps to improve and strengthen oversight, including support of the Inspector General's audit program. Still, we are concerned about the error rates the Inspector General identified. The Commission has already taken a number of steps to address the problems identified by the Inspector General and others, for example, implementing program-wide debarment measures in 2007, initiating recovery of any improperly disbursed funds, and executing a Memorandum of Understanding ("MOU") with the USF Administrator. These recent steps have provided tangible benefits. For example, an independent auditor audited the Commission's finance and accounting activities and issued a positive opinion that identified no material weaknesses in these activities in fiscal years 2006 or 2007. The independent auditor's opinion expressly covers the Commission's financial controls over the USF and represents a marked improvement over the period covering fiscal years 1999 through 2005. The importance and size of the USF demands constant scrutiny and assessment of the Commission's oversight efforts. We are initiating this NOI to continue our assessment, solicit input from the public, and develop additional rules and safeguards to protect the Fund.

II. Background

3. As set forth in section 254 of the Communications Act of 1934, as amended (the "Act"), universal service policy is intended to ensure the availability of affordable telecommunications services to consumers living in high-cost areas, low-income consumers, eligible schools and libraries, and rural health care providers. Section 254 also required explicit federal universal service mechanisms and enlarged the scope of the universal service program. The

universal service programs are funded by contributions remitted by telecommunications carriers providing interstate and international telecommunications services and from certain other providers of interstate telecommunications. The Universal Service Administrative Company ("USAC" or "USF Administrator"), a subsidiary of the National Exchange Carrier Association ("NECA") and a private not-for-profit corporation, was created to serve as the Administrator of the USF. The USF consists of four programs: (1) High-cost, providing financial support to eligible telecommunications carriers ("ETCs") serving high-cost areas; (2) schools and libraries ("E-Rate"), providing discounted telecommunications services, Internet access, and internal connections to eligible schools and libraries; (3) low-income, assisting low-income customers with discounted installation and monthly telephone services; and (4) rural health care, providing discounted telecommunications and information services to rural health care providers.

4. Many observers, including the Government Accountability Office ("GAO"), have recommended that the Commission take steps to improve oversight of the USF. In response, the Commission has taken action in previous proceedings to detect and deter waste, fraud, and abuse of the Fund. In addition, schools and libraries participating in the E-rate program have been subject to audits to determine compliance with program rules and requirements. Audits and investigations have uncovered issues ranging from poor program design to improper use of funds, including intentional efforts to defraud the program by unscrupulous actors. In many instances these audits and investigations have resulted in the referral of fraud cases to the Department of Justice ("DOJ"), and in settlements favorable to the Government and/or criminal convictions or civil judgments against the wrongdoers. In addition, where wrongdoers have been convicted or subject to civil judgments, the Commission has debarred or proposed debarment of the wrongdoers consistent with our rules.

5. More recently, the Commission has taken a series of steps to further bolster oversight of the USF. First, the Inspector General initiated 459 audits of beneficiaries and contributors. Based on the results of those audits, the Inspector General is now overseeing a second round of 650 audits (beneficiaries of Schools and Libraries and High Cost Fund programs only) that build upon experience from the first round. The

results of the Inspector General's audits have resulted in both recoveries of USF monies and enforcement action against entities that apparently violated Commission rules.

6. Second, the Commission has strengthened its oversight and management of the USF Administrator. In June 2007, the Commission established an MOU with the USF Administrator to ensure greater clarity in administrative and management functions. The MOU established reporting requirements of key performance measurement data to the Commission, instructed the Administrator to take corrective action on all audit findings including recovery of all funds identified as improperly disbursed, and directed the Administrator to maintain effective internal controls over its operations. Specifically, the MOU directs the Administrator to implement an internal controls structure consistent with the requirements of Office of Management and Budget ("OMB") Circular A-123. The Administrator is in the process of re-assessing its internal controls framework. The results of this effort should enable the Administrator to develop and implement corrective action plans for any identified internal control weaknesses, which will help to prevent and reduce improper payments across all USF programs. As noted above, the improved internal control structure over the USF has helped the Commission receive unprecedented high marks from the outside independent auditor over the Commission's finance and accounting activities, including those governing the USF. More recently, the Commission directed the USF Administrator to establish an incentive-based system for its executives to reduce and prevent improper payments. Specifically, any bonuses the USF Administrator pays to its executives must be based at least in part on the USF Administrators' success at reducing and preventing improper payments.

7. Third, the Commission established performance measures and goals for the USF and the USF Administrator. These performance measures and goals will be reported at least annually by the USF Administrator and will be summarized in the Commission's budget and financial submissions to Congress. In addition, the Commission required the USF Administrator to develop customer service standards and to prepare, review, and report data concerning the quality of service the USF Administrator provides to USF stakeholders. Like the USF Administrator's efforts to reduce and prevent improper payments, the

quality of service it provides its stakeholders will also help form the basis for executive compensation.

8. Fourth, in August 2007, the Commission adopted rules that address many of the problems previously identified with the USF program. The Commission's new rules establish rigorous document retention requirements for program participants and establish performance measurements to better manage the Administrator and the USF. These measurements, among other things, require the Administrator to provide specific performance metrics such as the number of program beneficiaries, rates of telephone subscribership in urban versus rural areas, and the average dollar amount of support. The Commission's new rules also create additional penalties for bad actors—specifically, the Commission can now debar from continued participation in the program, any party that defrauds any of the four disbursement programs.

9. Fifth, the Commission has followed up on investigations by taking strong enforcement action against bad actors. Since January 2007, the Commission has suspended or debarred 14 individuals or companies and proposed or issued 19 forfeitures or consent decrees against violators and other targets of our investigations. We expect that strong enforcement action and the deterrent effect of the Inspector General's comprehensive audit program will encourage compliance among program participants.

10. Finally, although not the subject of this *Notice of Inquiry*, the Commission has taken steps toward more fundamental reform of the USF. For example, the Commission recently took action to rein in the explosive growth in high-cost universal service support disbursements by adopting an interim, emergency cap on the amount of high-cost support that competitive ETCs may receive. Further, on January 29, 2008, the Commission released three notices of proposed rulemaking addressing proposals for comprehensive reform of the high-cost program. In the *Identical Support Rule NPRM*, the Commission tentatively concludes that it should eliminate the Commission's current "identical support" rule, which provides competitive ETCs with the same per-line high-cost support amounts that incumbent LECs receive. In the *Reverse Auctions NPRM*, the Commission tentatively concludes that reverse auctions offer several potential advantages over the current high-cost support distribution mechanisms. In the *Joint Board Comprehensive Reform NPRM*, the Commission is considering

the recommendations of the Joint Board to establish three separate funds with distinct budgets and purposes: A broadband fund; a mobility fund; and a provider of last resort fund, and to adopt an overall cap on high-cost funding. The Commission is also considering all the principles in section 254(b) of the Act, including reasonable comparability, in the *Tenth Circuit Remand* proceeding. Further, building on the progress made by the Commission in the *Comprehensive Review Order*, the Commission is continuing to consider comprehensive USF reform proposals raised in, or in response to, the *Comprehensive Review NPRM*, including ways to simplify the E-Rate program.

11. These oversight improvements have built upon the earlier measures taken by the Commission. In 1999, in the *Commitment Adjustment Order*, the Commission directed the USF Administrator to recover E-Rate funds committed in violation of the Act. In 2003, the Commission adopted a debarment rule and other measures for the E-Rate program to safeguard the Fund. In addition, as mentioned above, the Commission has taken other actions to detect and deter waste, fraud, and abuse of the Fund.

Summary of Audit Findings

12. In the *Comprehensive Review NPRM*, we asked whether we should require audits of program participants. In the *Comprehensive Review Order*, we concluded that the Inspector General's compliance audits of contributions to the USF and distributions from the USF would provide appropriate audit oversight of the USF programs and that an additional annual audit requirement was unnecessary. Working under the Inspector General's supervision, independent auditors audited distributions from and contributions to the USF that occurred during the 2005 funding year. The auditors tested compliance with the Commission's rules and provided the basis for the Inspector General's statistical estimates of erroneous payments as defined in the Improper Payments Information Act of 2002 ("IPIA"). Under the IPIA, a program is at risk if the erroneous payment rate exceeds 2.5 percent and the total amount of erroneous payment is greater than \$10 million. Under those criteria, the low-income, schools and libraries, and high-cost fund distributions were determined to be at risk. These audits represent the most rigorous review of USF beneficiaries and contributors since the Fund's inception. The auditors performed a random sample of 459 audits of

beneficiaries from all USF programs, as well as contributors, from 2005. The Inspector General released a preliminary analysis on October 3, 2007. The Office of Managing Director ("OMD") subsequently directed the USF Administrator to propose steps it could take to reduce future improper payments based on the information gained from the Inspector General's audits. The USF Administrator submitted a report on December 31, 2007, and a follow-up report on February 28, 2008. In its reports, the USF Administrator proposes additional steps that it could take to enhance oversight.

13. *Contributors.* Section 254 of the Act and the Commission's rules require all telecommunications carriers providing interstate and international telecommunications services and certain other providers of interstate telecommunications to contribute to the USF. Ninety contributors were randomly selected for the audits. The contribution improper payment rate was 5.50 percent. The independent auditors found noncompliance with the following rules: Rules associated with contributor ID; regulatory contact information; agent for service of process; Commission registration number; company's reported interstate revenues; company's reported interstate estimate; certification, and records maintained to support data.

14. *Low-income program.* The low-income program provides discounts to qualified consumers by reducing installation fees and monthly charges for basic telephone service. Additional discounts are available to qualified consumers living on tribal lands. The estimated improper payment rate was 9.5 percent. Areas of noncompliance included violations of the following: Advertising supported services; rates; link up discount; support of toll election; no deposit for lifeline; determination of consumer qualification; eligibility verification; officer certification; procedures for qualification; accurate submission of Form 497; record keeping; and certification from resellers.

15. *Schools and libraries program.* The E-Rate program provides discounts to schools and libraries for telecommunications services, Internet access, and internal connections. The auditors estimated the improper payment rate at 12.9 percent. The auditors found non-compliance in several areas, such as recordkeeping; eligible services; using the correct discount; and entering into a contract too early in the application process.

16. *High-cost program.* The high-cost program provides support for ETCs to ensure that consumers in all rural, insular, and high-cost areas have access to telecommunications services at rates that are reasonably comparable to those paid in urban areas. The estimated improper payment rate was 16.6 percent. The auditors found noncompliance with various rules, e.g., failure to accurately report historical revenue; failure to report the number of working loops; failure to submit forms; and failure to submit data.

17. *Rural health care program.* The rural health care program provides discounts to rural health care providers to ensure they pay no more than their urban counterparts for their telecommunications needs in the provision of health care services. In addition, the program provides support to rural health care providers for access to the Internet. The estimated improper payment rate was 20.64 percent which was mainly due to record keeping and record production problems.

18. In the *Comprehensive Review Order*, the Commission adopted rules that addressed many of the audit findings. For example, the audits disclosed widespread failure of beneficiaries to retain appropriate documentation to justify USF support. The document retention requirements adopted in the *Comprehensive Review Order* should remedy these problems. Other concerns raised by the audits, such as rule violations, may be prevented by better outreach by the USF Administrator, or other methods of educating program beneficiaries.

III. Discussion

19. At the outset, we seek comment broadly on ways to further strengthen the administration, management, and oversight of the Fund. For example, we seek comment on what additional measures the Commission can implement to prevent improper USF payments, to safeguard the USF from waste, fraud, and abuse, to ensure that all providers are properly contributing the amounts they have collected from their subscribers to the USF, and to help operate the program in a more efficient, effective manner. Commenters should propose measures that the USF Administrator could take to prevent improper payments and collect all sums that should be paid to the fund and address the error rates identified in the Inspector General's audit results. Commenters should also propose measures that the Commission could take to prevent improper payments and address error rates, as well as measures that program participants can take to

prevent improper payments and address error rates. We seek comment on whether the Commission should adopt an independent audit requirement for program beneficiaries and contributors. Commenters should address whether safeguards should be adopted uniquely for certain USF programs and contributions or if the safeguards should remain more or less uniform, and if so, why. Commenters should discuss the costs versus benefits of their proposals in specific, rather than general, terms. We recognize that the four USF disbursement programs and the contribution mechanism have many differences and perhaps need different, more closely tailored requirements to prevent waste, fraud, and abuse efficiently and effectively. In summary, we seek comment on whether different safeguards are necessary for the different aspects of the universal service program. We also use this as an opportunity to request that parties refresh the record on these issues in response to the Commission's 2005 *Comprehensive Review NPRM*.

20. We expect to continue to rely on the expert oversight of the Commission's Inspector General to conduct and maintain a sufficient audit program. As noted above, the Commission's Inspector General completed the most comprehensive round of audits of the USF ever conducted. Based on these initial results, the Inspector General has initiated plans to significantly expand the audit program going-forward in order to provide more precise estimates of the error rates and more detailed information on the underlying causes of any high error rates. In Fiscal Year 2008, the Commission requested and received from Congress \$21.48 million for the Inspector General's USF oversight efforts. The Commission has requested an additional \$25.48 million in USF oversight funding for the Inspector General in Fiscal Year 2009. As the Inspector General completes audits of the program, we will continue to recover any improperly disbursed monies and work to implement appropriate corrective action in light of the audit results.

21. We seek comment on whether the Commission should establish additional rules pertaining to document retention and enforcement. We note that most problems identified in the audit results were related to lack of documentation by program participants. In August 2007, the Commission adopted specific document retention rules for each USF mechanism. We seek comment on whether the audit results suggest that the Commission should take additional

steps related to document retention in order to help verify that USF monies are used for their intended purposes. If so, what steps should be taken? Should recipients of universal service funding be required to retain documents that they are currently not required to retain? Currently, the rules require that records be retained for five years for all aspects of the USF, except for the low-income program for which documents must be retained for as long as the recipient continues to receive supported service plus three additional years. Should applicants and service providers be required to retain records for a longer period? Should the Commission embrace additional enforcement methods, or adopt additional enforcement rules, to address these issues and, if so, what should they be?

22. As part of our examination into enhancing our oversight and management of the USF, we seek comment on whether the Commission should take steps to more clearly define the goals of the federal universal service programs. We seek comment on whether we should adopt specific qualitative or quantitative goals beyond those policy objectives enumerated in section 254 of the Act. We ask parties that advocate additional goals to identify with specificity the goals they recommend we apply.

23. In 2005 we sought comment on the utility of a permanent administrator of the USF. We specifically solicited comment from stakeholders on the option of eliminating USAC as the permanent administrator of the USF and thereby using a contractor (obtained using the FAR) to perform the administration of the USF. As a general matter, commenters either did not address this proposal or filed comments in support of retaining the status quo. We use this opportunity to refresh the record in this regard. Should the Commission continue to use a permanent administrator of the USF? Alternatively, the Commission could obtain the services of a contractor or contractors to perform the USF Administrator's functions. We seek comment on this option.

24. Earlier this year, the Commission required the USF Administrator to establish customer service standards and to report regularly on the quality of service provided to USF stakeholders. At this time, the USF Administrator collects and reports the number and type of complaints received, the number of inquiries, the average number of business days to resolve complaints, and the percentage of complaints resolved within 20 business days. These specific data elements are currently

under review and may change. We note that the USF Administrator is now required to base its executive compensation in part on the quality of service it provides stakeholders. In the meantime, we seek comment from USF stakeholders on additional metrics the USF Administrator should collect and report to illustrate the quality of service it provides stakeholders.

25. We seek comment on what additional performance management techniques the Commission could adopt to improve the administration and operation of the USF. In August 2007, the Commission took initial steps to improve the performance management of the USF by adopting performance measures to help ensure the program operates in an efficient, effective manner. Most of these performance measures were "output measures." OMB and GAO have written extensively on the use of performance management techniques and the use of performance goals and measures in Federal programs. OMB and GAO have recommended greater reliance on other types of performance goals and measures, including "outcome" and "efficiency" measures. Because we are committed to ensuring the USF operates in the manner intended by Congress, we seek comment on whether the Commission should establish additional performance goals and measures, or delete or revise any previously established performance goals and measures, and, more fundamentally, if the Commission has the authority to set long-term goals for the USF programs. If so, what additional performance goals and measures should be established, deleted, or modified, and, if so, why? Should performance measures be oriented toward the implicit social welfare objectives of the USF programs or tied only to accomplishment of the explicit requirements of the Act? If and when long-term program goals are met, does the Commission have the authority to terminate or significantly modify a USF program, without explicit Congressional direction?

26. The GAO recently concluded that the internal control mechanisms over the High Cost program, including the use of audits, have "weaknesses." However, the GAO declined to make any specific recommendations for strengthening or improving the internal control structure over the program beyond recommending that the Commission "should identify areas of risk in its internal control environment and implement mechanisms that will help ensure compliance with program rules and produce cost-effective use of program funds." Nor did the GAO

identify any specific internal control weaknesses beyond concluding that the existing internal controls "may not fully address" the concerns the GAO identified about cost-effectiveness, accuracy of cost and line count data, and the appropriateness of high cost support. We invite program stakeholders to identify areas of risk in the program's internal control environment and to propose mechanisms that will help ensure compliance with program rules and produce cost-effective use of program funds. We seek comment on additional measures we can take to enhance the internal control structure of the entire USF, including all four beneficiary support mechanisms and the contributions program. We seek comment on whether we should establish an independent audit requirement such as the one discussed in the 2005 NPRM. We note that the Commission's OIG may exercise its discretion to evaluate the accuracy of cost and line count data, which the GAO identified as a concern. We seek comment on whether the Commission should establish any additional measures to provide better guarantees in this area.

27. Commenters should describe the costs and benefits of any such proposals, including the costs associated with any information collection effort. Commenters should address how the Commission should gather, process, and report on performance measures. Should the funds for such data collection and processing come from the USF? If so, how much USF money should be spent on an information collection effort for performance measurements?

28. Commenters should also discuss whether short-term goals should flow from explicitly stated long-term goals and if the Commission has the responsibility to set short-term operational goals based upon the requirements in the Act. Should performance measurements of accomplishment of the long and short-term goals be at least in part the responsibility of the USF Administrator?

29. We seek comment on any specific long-term and short-term goals of the USF programs. With respect to the high-cost program, we seek comment on any quantifiable measures that can be used in determining the program's success in meeting its goals. Commenters should discuss whether the Commission has the authority to adopt goals that are not specifically part of section 254 of the Act. Commenters should address whether high-cost program goals should

focus exclusively on broadband connections or develop a defined mix of support for broadband and traditional voice telecom. Commenters should discuss appropriate long-term goals for the schools and libraries program and what the Commission should do with respect to the schools and libraries program after such goals have been met. For example, if an appropriate long-term goal is a certain level of connectivity in the Nation's schools and libraries, what should the Commission do, and what authority does the Commission have, with respect to the program after that level of connectivity is met? With respect to the high-cost program, should the Commission create a low, mid, and high range set of options regarding services that could be provided by the program under current rules with less, the same, or more funding?

30. We recognize that a specific rule may never be specific enough to adequately address all situations. In addition, a specific rule may not remain perfectly up-to-date, especially in such a dynamic industry as telecommunications, *e.g.*, changes in technology, corporate structures, etc. We recognize the need of an administrator to be able to effectively implement our rules in such a fast-changing environment. Under Part 54 of our rules, USAC, as the administrator, is not permitted to make policy decisions without bureau guidance. Any party, including USAC and NECA, can file for such guidance at any time. Timely guidance would be important to the efficient and effective administration of the USF programs. We seek comment on the efficiency and effectiveness of this process for obtaining timely guidance with interpretation of our rules, especially with regard to the administration of the USF programs. Commenters are encouraged to provide specifics to the extent possible. For example, comments on actual experience(s) in receiving timely guidance on the interpretation of our rules would be most helpful. Commenters are also asked to state how any identified problem area can be improved.

31. We seek comment on whether the Commission should establish additional rules pertaining to internal control requirements for program participants. For example, OMB Circular A-123 describes the internal control requirements applicable to Federal agencies. In this circular, OMB describes internal control, consisting of organization, policies, and procedures, as a method to help program and financial managers achieve results and safeguard the integrity of their

programs. We seek comment on what steps, if any, the Commission should take with respect to the establishment of internal control measures for program participants. We also seek comment on whether the Commission's internal control measures should be improved with respect to the Universal Service Fund. Commenters should describe any internal control recommendations in detail, as well as the estimated costs and benefits of any such requirements. Commenters should discuss whether the Commission needs to have more direct oversight of the USF Administrator, with respect to the internal controls of the USF.

32. We note that, under the Commission's rules, NECA performs certain activities and functions related to the USF. For example, NECA is the sole shareholder of the current USF Administrator, USAC. In addition, NECA collects certain data used to administer the high cost program. On a related note, NECA performs comparable administrative functions over the TRS fund. We seek comment on whether we should take additional measures concerning NECA's relationship to the current USF Administrator and its activities in the program. For example, should the Commission adopt any specific conflict of interest or other requirements pertaining to NECA (or its successors or assigns) and its relations with the USF Administrator? Should the Commission establish any requirements specifically designed to create greater transparency in the relationship between NECA and the USF Administrator? We seek comment on whether we should establish any rules governing the NECA board with respect to its relations with the USF Administrator, such as the sharing of information or the possibility of shared board members. USAC has proposed that the Commission consider whether USAC should be divested from NECA ownership. We seek comment on USAC's proposal.

33. Since 2005, the Commission has required USAC to conduct its procurements consistent with the Federal Acquisition Regulation ("FAR"). We seek comment on ways that we can improve our oversight of the Administrator's procurement function. For example, should the Commission adopt rules that apply fully the socioeconomic goals incorporated into the FAR, such as veteran's preferences and small business set-asides? We note that the USF Administrator is currently subject to an annual audit as specified in Part 54 of the Commission's rules and that, while this audit may cover the USF Administrator's procurement activities,

such reviews and evaluations are not guaranteed. We therefore seek comment on the extent to which we should establish additional oversight of the USF Administrator's compliance with the FAR. We note that the MOU requires the USF Administrator to take greater steps to use performance-based contracting in its procurements. We seek comment on whether we should mandate a percentage of the USF Administrator's procurements to be performance-based. We also seek comment on other ways to ensure fairness and transparency in the USF Administrator beyond those provided for in the FAR. Alternatively, the Commission could handle certain or all procurements on behalf of the USF Administrator. We seek comment on whether the Commission should take a more active role in the USF Administrator's procurements, such as by handling all aspects of the procurement process for contracts exceeding \$250,000. Commenters should discuss whether the Commission should impose additional substantive or reporting requirements on the Administrator.

34. We seek comment on what additional measures, if any, the Commission should undertake with respect to the application process for each of the USF programs. For example, should the Commission revise any of the existing procedures or forms to help safeguard the process for obtaining program benefits? In particular, should additional information be required of program participants in the application process that would improve the detection of waste, fraud, or abuse, or that would enable the Commission to evaluate whether or how universal service goals are being met? We seek comment on these issues for each of the universal service mechanisms.

35. We seek comment on ways in which we could ensure better accuracy in the certification and verification requirements in the low-income program. In 2004, the Commission adopted federal verification and certification procedures and required states, under certain circumstances, to establish verification and certification procedures to minimize potential abuse in the low-income program. Each year, ETCs are required to verify the continued eligibility of a statistically valid sample of their Lifeline subscribers. ETCs in states that do not have state-based low-income programs must follow the certification and verification procedures set out in the *Lifeline Order*. ETCs in states with their own state-based low-income programs must follow the state-established

verification procedures. We are concerned about the possibility of waste, fraud, and abuse in this program by consumers and telecommunications carriers, in federal default states as well as in other states. We therefore seek comment on how to improve the certification and verification requirements. Commenters should suggest ways in which the USF Administrator can better ensure that Lifeline and Link-Up low-income consumers are eligible for such programs after their initial enrollment. Commenters should also discuss whether different methods should be used to prevent waste, fraud, and abuse in federal default states and in states that are not federal default states.

IV. Procedural Matters

A. Initial Paperwork Reduction Act Analysis

36. This NOI does not contain proposed or modified information collections subject to the Paperwork Reduction Act of 1995 ("PRA"), Public Law 104-13. This NOI does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198.

B. Ex Parte Rules

37. This is as a "permit-but-disclose" proceeding subject to the requirements under section 1.1206(b) of the Commission's rules. *Ex parte* presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required. Additional rules pertaining to oral and written presentations are set forth in section 1.1206(b).

C. Filing Requirements

38. *Comments and Replies.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, interested parties may file comments on or before the

dates indicated on the first page of this document. Comments may be filed using: (1) The Commission's Electronic Comment Filing System ("ECFS"), (2) the Federal Government's eRulemaking Portal, or (3) procedures for filing paper copies.

39. *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the Web site for submitting comments. For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

40. *Paper Filers:* Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8 a.m. to 7 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail

and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW., Washington, DC 20554.

41. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the Commission Reference Center, Federal Communications Commission, 445 12th Street, SW., CY-A257, Washington, DC 20554. These documents will also be available free online, via ECFS. Documents will be available electronically in ASCII, Word, and/or Adobe Acrobat.

42. *Accessibility Information.* To request information in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to fcc504@fcc.gov or call the Commission's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document can also be downloaded in Word and Portable Document Format ("PDF") at: <http://www.fcc.gov>.

V. Ordering Clauses

43. Accordingly, it is ordered that, pursuant to sections 1, 4(i) and (j), 9, 205, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 154(j), 159, 205, and 303(r), this Notice of Inquiry is hereby adopted.

Federal Communications Commission.

Marlene H. Dortch,
Secretary.

[FR Doc. E8-24300 Filed 10-10-08; 8:45 am]

BILLING CODE 6712-01-P

FEDERAL COMMUNICATIONS COMMISSION

Sunshine Act Meeting; FCC To Hold Open Commission Meeting Wednesday, October 15, 2008 in Nashville, TN

October 8, 2008.

The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Wednesday, October 15, 2008, which is scheduled to commence at 9:30 a.m. in Nashville, Tennessee.

Item No.	Bureau	Subject
1	Media	<i>Title:</i> Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations. <i>Summary:</i> The Commission will consider an Order, Further Notice of Proposed Rule-making, and Memorandum Opinion and Order considering issues with respect to the low power television digital transition.
2	Public Safety & Homeland Security	<i>Title:</i> Improving Public Safety Communications in the 800 MHz Band; Relinquishment By Sprint Nextel of Channels in the Interleaved, Expansion, and Guard Bands. <i>Summary:</i> The Commission will consider an Order addressing Sprint Nextel's June 17, 2008 Petition for Relief regarding its 800 MHz spectrum holdings in the Interleaved Band (809–815/854–860 MHz), Expansion Band (815–816/860–861 MHz) and Guard Band (816–187/861–862 MHz).
3	Wireless Tele-Communications	<i>Title:</i> Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets (WT Docket No. 00–230). <i>Summary:</i> The Commission will consider a Second Order on Reconsideration concerning the Secondary Markets proceeding.
4	Wireless Tele-Communications	<i>Title:</i> Amendment of Part 90 of the Commission's Rules To Provide for Flexible Use of the 896–901 MHz and 935–940 MHz Band Allotted to the Business and Industrial Land Transportation Pool. <i>Summary:</i> The Commission will consider a Report and Order whether to adopt geographic service licensing and competitive bidding rules for spectrum presently unencumbered within the spectrum currently allotted at 900 MHz for Business/Industrial Land Transportation (B/ILT) use. The Commission will also consider appropriate interference protection standards and whether the Commission should lift the "freeze" placed on applications for new 900 MHz B/ILT authorizations.
5	Wireless Tele-Communications	<i>Title:</i> EFL Realty Trust, Applications for New Licenses In the Non-SMR 900 MHz Band for Industrial/Business Pool, Trunked (YU) Stations at Multiple Locations. <i>Summary:</i> The Commission will consider an Order addressing the dismissal of thirteen applications filed by EFL Realty Trust, proposing non-Specialized Mobile Radio trunked service in the Industrial/Business Pool 900 MHz band.
6	International	<i>Title:</i> 2000 Biennial Regulatory Review—Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations. Streamlining the Commission's Rules and Regulations for Satellite Applications and Licensing Procedures. <i>Summary:</i> The Commission will consider an Eighth Report and Order and Order On Reconsideration concerning issues raised in the Third Further Notice of Proposed Rule-making in this proceeding, IB Docket No. 00–248.
7	International	<i>Title:</i> Second Annual Report and Analysis of Competitive Market Conditions with Respect to Domestic and International Satellite Communications Services <i>Summary:</i> The Commission will consider a Second Annual Report to the United States Congress on the status of competition in the markets for domestic and international satellite communications services, as required by Section 703 of the Communications Satellite Act of 1962, as amended.

*The summaries listed in this notice are intended for the use of the public attending open Commission meetings. Information not summarized may also be considered at such meetings. Consequently these summaries should not be interpreted to limit the Commission's authority to consider any relevant information.

Open captioning will be provided for this event. Other reasonable accommodations for people with disabilities are available upon request. Include a description of the accommodation you will need including as much detail as you can. Also include a way we can contact you if we need more information. Make your request as early as possible; please allow at least 5 days advance notice. Last minute requests will be accepted, but may be impossible to fill. Send an e-mail to: fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (tty).

For a fee this meeting can be viewed live over George Mason University's Capitol Connection. The Capitol Connection also will carry the meeting live via the Internet. To purchase these

services, call (703) 993–3100 or go to <http://www.capitolconnection.gmu.edu>.

Copies of materials adopted at this meeting can be purchased from the FCC's duplicating contractor, Best Copy and Printing, Inc. (202) 488–5300; Fax (202) 488–5563; TTY (202) 488–5562. These copies are available in paper format and alternative media, including large print/type; digital disk; and audio and video tape. Best Copy and Printing, Inc. may be reached by e-mail at FCC@BCPIWEB.com.

Additional information concerning this meeting may be obtained from Audrey Spivack or David Fiske, Office of Media Relations, (202) 418–0500; TTY 1–888–835–5322. Audio/Video coverage of the meeting will be broadcast live with open captioning over the Internet from the FCC's Audio/

Video Events Web page at <http://www.fcc.gov/realaudio>.

Federal Communications Commission.

Marlene H. Dortch,

Secretary.

[FR Doc. E8–24412 Filed 10–9–08; 4:15 pm]

BILLING CODE 6712–01–P

FEDERAL TRADE COMMISSION

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Extension

AGENCY: Federal Trade Commission ("Commission" or "FTC").

ACTION: Notice.

SUMMARY: The information collection requirements described below will be

submitted to the Office of Management and Budget ("OMB") for review, as required by the Paperwork Reduction Act ("PRA"). The FTC is seeking public comments on its proposal to extend through October 31, 2011, the current PRA clearance for information collection requirements contained in its Trade Regulation Rule on Disclosure Requirements and Prohibitions Concerning Franchising ("Franchise Rule"). That clearance expires on October 31, 2008.

DATES: Comments must be submitted on or before November 13, 2008.

ADDRESSES: Interested parties are invited to submit written comments electronically or in paper form. Comments should refer to "Franchise Rule, PRA Comment, FTC File No. P094400" to facilitate the organization of comments. Please note that comments will be placed on the public record of this proceeding—including on the publicly accessible FTC website, at (<http://www.ftc.gov/os/publiccomments.shtml>)—and therefore should not include any sensitive or confidential information. In particular, comments should not include any sensitive personal information, such as an individual's Social Security Number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. Comments also should not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, comments should not include any "[t]rade secrets and commercial or financial information obtained from a person and privileged or confidential. . . ." as provided in Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and Commission Rule 4.10(a)(2), 16 CFR 4.10(a)(2). Comments containing material for which confidential treatment is requested must be filed in paper form, must be clearly labeled "Confidential," and must comply with FTC Rule 4.9(c).¹

Because paper mail addressed to the FTC is subject to delay due to heightened security screening, please consider submitting your comments in electronic form. Comments filed in electronic form should be submitted by

using the following weblink: (<http://secure.commentworks.com/ftc-franchiserule>) (and following the instructions on the web-based form). To ensure that the Commission considers an electronic comment, you must file it on the web-based form at the weblink (<http://secure.commentworks.com/ftc-franchiserule>). If this Notice appears at (<http://www.regulations.gov/search/index.jsp>), you may also file an electronic comment through that website. The Commission will consider all comments that regulations.gov forwards to it. You may also visit the FTC website at <http://www.ftc.gov> to read the Notice and the news release describing it.

A comment filed in paper form should include the "Franchise Rule, PRA Comment, FTC File No. P094400" reference both in the text and on the envelope, and should be mailed or delivered to the following address: Federal Trade Commission, Office of the Secretary, Room H-135 (Annex J), 600 Pennsylvania Avenue, NW, Washington, DC 20580. The FTC is requesting that any comment filed in paper form be sent by courier or overnight service, if possible, because U.S. postal mail in the Washington area and at the Commission is subject to delay due to heightened security precautions.

All comments should additionally be submitted to: Office of Information and Regulatory Affairs of OMB, Attention: Desk Officer for the Federal Trade Commission. Comments should be submitted via facsimile to (202) 395-6974 because U.S. Postal Mail is subject to lengthy delays due to heightened security precautions.

The FTC Act and other laws the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives, whether filed in paper or electronic form. Comments received will be available to the public on the FTC website, to the extent practicable, at (<http://www.ftc.gov/os/publiccomments.shtml>). As a matter of discretion, the Commission makes every effort to remove home contact information for individuals from the public comments it receives before placing those comments on the FTC website. More information, including routine uses permitted by the Privacy Act, may be found in the FTC's privacy policy, at (<http://www.ftc.gov/ftc/privacy.shtml>).

FOR FURTHER INFORMATION CONTACT:
Requests for additional information or

copies of the proposed information requirements for the Franchise Rule should be addressed to Craig Tregillus, Staff Attorney, Division of Marketing Practices, Bureau of Consumer Protection, Federal Trade Commission, Room H-238, 600 Pennsylvania Ave., N.W., Washington, D.C. 20580, (202) 326-2970.

SUPPLEMENTARY INFORMATION: On July 15, 2008, the FTC sought comment on the information collection requirements associated with the Franchise Rule, 16 CFR Part 436 (Control Number: 3084-0107).² No comments were received. Pursuant to the OMB regulations, 5 CFR Part 1320, that implement the PRA, 44 U.S.C. 3501-3521, the FTC is providing this second opportunity for public comment while seeking OMB approval to extend the existing paperwork clearance for the Rule. All comments should be filed as prescribed in the **ADDRESSES** section above, and must be received on or before November 13, 2008.

The Franchise Rule ensures that consumers who are considering a franchise investment have access to the material information they need to make an informed investment decision provided in a format that facilitates comparisons of different franchise offerings. The Rule requires that franchisors disclose this information to consumers and maintain records to facilitate enforcement of the Rule. Revisions to the Rule promulgated on March 30, 2007,³ which took final effect on July 1, 2008, after a one-year phase-in, largely merged the Rule's disclosure requirements with the Uniform Franchise Offering Circular ("UFOC") disclosure format accepted by 15 states that have franchise registration and disclosure laws. This should significantly minimize any compliance burden beyond what is now required by state law.

As amended, the Rule requires franchisors to furnish to prospective purchasers a disclosure document that provides information relating to the franchisor, its business, the nature of the proposed franchise, and any representations by the franchisor about financial performance regarding actual or potential sales, income, or profits made to a prospective franchise purchaser. The franchisor must preserve materially different copies of its disclosures and franchise agreements, as well as information that forms a reasonable basis for any financial performance representation it elects to make. These requirements are subject to

¹ FTC Rule 4.2(d), 16 CFR 4.2(d). The comment must be accompanied by an explicit request for confidential treatment, including the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. The request will be granted or denied by the Commission's General Counsel, consistent with applicable law and the public interest. See FTC Rule 4.9(c), 16 CFR 4.9(c).

² 73 FR 40580.

³ 72 FR 15444 *et seq.*

the PRA, and for which the Commission seeks to extend existing clearance.⁴

Estimated annual hours burden: 16,750 hours

Based on a review of trade publications and information from state regulatory authorities, staff believes that, on average, from year to year, there are approximately 2,500 sellers of franchises covered by the Rule, with perhaps about 10% of that total reflecting an equal amount of new and departing business entrants.⁵ Staff's burden hour estimate reflects the incremental burden that part 436 may impose beyond the information and recordkeeping requirements imposed by state law and/or followed by franchisors who have been using the UFOC disclosure format nationwide.⁶ This estimate likely overstates the actual incremental burden because some franchisors, for various reasons, may not be covered by the Rule (e.g., they sell only franchises that qualify for the Rule's large franchise investment exemption of at least \$1 million).⁷

For October 31, 2008 to October 31, 2009, the first twelve months of prospective 3-year renewed PRA clearance, staff estimates that the average annual disclosure burden to update existing disclosure documents will be three hours each year for the 2,250 established franchisors, or 6,750 hours, and 30 hours each year for the 250 or so new entrant franchisors to prepare their initial disclosure documents, or 7,500 hours. These estimates for the amended Rule are based on staff's prior estimates for the original Rule, and further adopt the

analysis of the 2005 clearance request and the Statement of Basis and Purpose ("SBP") for the amended Rule.⁸

As discussed in the 2005 Notices and the SBP, as under the original Rule, covered franchisors also may need to maintain additional documentation for the sale of franchises in non-registration states, which could take up to an additional hour of recordkeeping per year. This yields an additional cumulative total of 2,500 hours per year for covered franchisors (1 hour x 2,500 franchisors).

Part 436 of the amended Rule would also increase franchisors' recordkeeping obligations. Specifically, a franchisor would be required to retain copies of receipts for disclosure documents, as well as materially different versions of its disclosure documents. Such recordkeeping requirements, however, are consistent with, or less burdensome, than those imposed by the states.

Thus, staff estimates the average hours burden for new and established franchisors during the three-year clearance period ahead would be 16,750 ((30 hours of annual disclosure burden x 250 new franchisors = 7,500 hours) + (3 hours of average annual disclosure burden x 2,250 established franchisors = 6,750 hours) + (1 hour of annual recordkeeping burden x 2,500 franchisors = 2,500 hours)).

Estimated annual labor cost burden for part 436: \$3,595,000

Labor costs are derived by applying appropriate hourly cost figures to the burden hours described above. The hourly rates used below are estimated averages.

As stated in the 2005 Notices, staff believes that an attorney will prepare the disclosure document, and at an estimated \$250 per hour. Accordingly, staff estimates that 250 new franchisors will each annually incur \$7,500 in labor costs (30 hours x \$250 per hour) and 2,250 established franchisors will each incur \$750, annually, in labor costs (3 hours x \$250 per hour).

Further, staff anticipates that recordkeeping under part 436 will be performed by clerical staff at approximately \$13 per hour. Thus, 2,500 hours of recordkeeping burden per year for all covered franchisors will amount to a total annual labor cost of \$32,500.

Cumulatively, then, total estimated labor costs under part 436 is \$3,595,000 ((\$7,500 attorney costs x 250 new franchisors = \$1,875,000) + (\$750 attorney costs x 2,250 established franchisors = \$1,687,500) + (\$13 clerical costs x 2,500 franchisors = \$32,500)).

Estimated non-labor costs for part 436: \$8,000,000

As an initial matter, in developing cost estimates, Commission staff consulted with practitioners who prepare disclosure documents for a cross-section of franchise systems. Accordingly, the Commission believes that its cost estimates are representative of the costs incurred by franchise systems generally. In addition, many franchisors establish and maintain websites for ordinary business purposes, including advertising their goods or services and to facilitate communication with the public. Accordingly, any costs franchisors would incur specifically as a result of electronic disclosure under part 436 appear to be minimal.

As set forth in the 2005 Notices, staff estimates that the non-labor burden incurred by franchisors under part 436 will differ based on the length of the disclosure document and the number of disclosure documents produced. Staff estimates that 2,000 franchisors (80% of total franchisors covered by the Rule) will print and mail 100 disclosure documents at \$35 each. Thus, these franchisors will each incur \$3,500 in printing and mailing costs. Staff estimates that the remaining 20% of covered franchisors (500) will transmit 50% of their 100 disclosure documents electronically, at \$5 per electronic disclosure. Thus, these franchisors will each incur \$2,000 in distribution costs ((\$250 for electronic disclosure [\$5 for electronic disclosure x 50 disclosure documents]) + (\$1,750 for printing and mailing [\$35 for printing and mailing x 50 disclosure documents])).

Accordingly, the cumulative annual non-labor costs for part 436 of the amended Rule is approximately \$8,000,000 ((\$3,500 printing and mailing costs x 2,000 franchisors = \$7,000,000) + (\$250 electronic distribution costs + \$1,750 printing and mailing costs) x 500 franchisors = \$1,000,000)).

William Blumenthal,
General Counsel.

[FR Doc. E8-24232 Filed 10-10-08; 8:45 am]

[BILLING CODE: 6750-01-S]

⁴ The current clearance under OMB Control Number 3084-0107 covers the disclosure and recordkeeping requirements of the original Franchise Rule, 16 CFR Part 436, which applied both to the sale of franchises and of business opportunity ventures. The disclosure and recordkeeping requirements applicable to business opportunity ventures are now separately set forth in 16 CFR Part 437, and are covered under recently assigned OMB Control Number 3084-0142. The portion of the prior clearance applicable to business format franchisors under Part 436 retains the pre-existing OMB Control Number 3084-0107.

⁵ This is one-half of the number used in the 2005 clearance request, when both franchises and business opportunities were covered by the Rule, and reflects the fact that business opportunities are now separately covered by Part 437 and a separate OMB clearance. This number appears to be consistent with the number of business format franchise offerings registered in compliance with state franchise laws, and listed in franchise directories.

⁶ Staff estimates that about 95 percent of all franchisors use the UFOC format because the original Franchise Rule authorized use of the UFOC in lieu of the Rule disclosure format to satisfy the Rule's disclosure requirements and reduce compliance burdens.

⁷ 16 CFR 436.8(a)(5). This exemption was added by the amended Rule.

⁸ 70 FR 28937, 28940 (May 19, 2005); 70 FR 51817, 51819 (Aug. 31, 2005) ("2005 Notices"); 72 FR 15444, 15542 (Mar. 30, 2007). Although the 2005 Notices and the amended Rule's SBP assumed that additional time (cumulatively, 2,750 hours) would be required to prepare disclosures during the transition to compliance with the amended Rule, the one-year transition period ended on July 1, 2008, when the amended Rule took full effect.

FEDERAL TRADE COMMISSION**Agency Information Collection Activities; Submission for OMB Review; Comment Request**

AGENCY: Federal Trade Commission ("FTC" or "Commission").

ACTION: Notice.

SUMMARY: The information collection requirements described below will be submitted to the Office of Management and Budget ("OMB") for review, as required by the Paperwork Reduction Act. The FTC is seeking public comments on its proposal to extend through October 31, 2011, the current OMB clearance for the information collection requirements pertaining to the Commission's administrative activities. That clearance expires on October 31, 2008, and consists of: (a) applications to the Commission, including applications and notices contained in the Commission's Rules of Practice (primarily Parts I, II, and IV); (b) the FTC's consumer complaint systems; (c) the FTC's program evaluation activities and; (d) the FTC's Applicant Background Form.

DATES: Comments must be filed by November 13, 2008.

ADDRESSES: Interested parties are invited to submit written comments electronically or in paper form. Comments should refer to "Administrative Activities: FTC File No. P911409" to facilitate the organization of comments. Please note that comments will be placed on the public record of this proceeding—including on the publicly accessible FTC website, at (<http://www.ftc.gov/os/publiccomments.shtml>)—and therefore should not include any sensitive or confidential information. In particular, comments should not include any sensitive personal information, such as an individual's Social Security Number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. Comments also should not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, comments should not include any "[t]rade secrets and commercial or financial information obtained from a person and privileged or confidential. . . ." as provided in Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and Commission Rule 4.10(a)(2), 16 CFR 4.10(a)(2). Comments containing material for which confidential treatment is requested must be filed in

paper form, must be clearly labeled "Confidential," and must comply with FTC Rule 4.9(c).¹

Because paper mail addressed to the FTC is subject to delay due to heightened security screening, please consider submitting your comments in electronic form. Comments filed in electronic form should be submitted by using the following weblink: (<https://secure.commentworks.com/ftc-adminactivitiespra2>) (and following the instructions on the web-based form). To ensure that the Commission considers an electronic comment, you must file it on the web-based form at the weblink: (<https://secure.commentworks.com/ftc-adminactivitiespra2>). If this Notice appears at (<http://www.regulations.gov/search/index.jsp>), you may also file an electronic comment through that website. The Commission will consider all comments that regulations.gov forwards to it. You may also visit the FTC website at <http://www.ftc.gov> to read the Notice and the news release describing it.

A comment filed in paper form should include the (<https://secure.commentworks.com/ftc-adminactivitiespra2>) reference both in the text and on the envelope, and should be mailed or delivered to the following address: Federal Trade Commission, Office of the Secretary, Room H-135 (Annex J), 600 Pennsylvania Avenue, NW, Washington, DC 20580. The FTC is requesting that any comment filed in paper form be sent by courier or overnight service, if possible, because U.S. postal mail in the Washington area and at the Commission is subject to delay due to heightened security precautions.

All comments should additionally be submitted to: Office of Management and Budget, Attention: Desk Officer for the Federal Trade Commission. Comments should be submitted via facsimile to (202) 395-6974 because U.S. Postal Mail is subject to lengthy delays due to heightened security precautions.

The FTC Act and other laws the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives, whether filed in paper or electronic

form. Comments received will be available to the public on the FTC website, to the extent practicable, at (<http://www.ftc.gov/os/publiccomments.shtml>). As a matter of discretion, the Commission makes every effort to remove home contact information for individuals from the public comments it receives before placing those comments on the FTC website. More information, including routine uses permitted by the Privacy Act, may be found in the FTC's privacy policy, at (<http://www.ftc.gov/ftc/privacy.shtml>).

FOR FURTHER INFORMATION CONTACT:

Requests for additional information should be addressed to Nick Mastrocinque, Attorney; Edwin Acajabon, Program Manager, Division of Planning and Information, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Ave., N.W., H-228, Washington, D.C. 20580, (202) 326-3188; (202) 326-3684.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act ("PRA"), 44 U.S.C. 3501-3520, federal agencies must obtain approval from OMB for each collection of information they conduct or sponsor. On July 21, 2008, the FTC sought comment on the information collection requirements pertaining to the Commission's administrative activities (OMB Control Number 3084-0047).² No comments were received. Pursuant to the OMB regulations that implement the PRA (5 CFR Part 1320), the FTC is providing this second opportunity for public comment while seeking OMB approval to extend the existing paperwork clearance for the Commission's administrative activities. All comments should be filed as prescribed in the **ADDRESSES** section above, and must be received on or before November 13, 2008.

The Commission's Administrative Activities clearance consists of: (a) applications to the Commission, including applications and notices contained in the Commission's Rules of Practice (primarily Parts I, II, and IV); (b) the FTC's consumer complaint systems; (c) FTC program evaluation activities; and (d) the FTC's Applicant Background Form.

Estimated annual hours burden: 380,295 hours.

(a) Applications to the Commission, including applications and notices contained in the Commission's Rules of Practice: 100 hours

Most applications to the Commission generally fall within the "law

¹ FTC Rule 4.2(d), 16 CFR 4.2(d). The comment must be accompanied by an explicit request for confidential treatment, including the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. The request will be granted or denied by the Commission's General Counsel, consistent with applicable law and the public interest. See FTC Rule 4.9(c), 16 CFR 4.9(c).

² 73 FR 42346.

enforcement” exception to the PRA³ and are mostly found in Part III (Rules of Practice for Adjudicative Proceedings) of the Commission’s Rules of Practice. *See* 16 CFR 3.1-3.83. Nonetheless, there are various applications and notices to the Commission contained in other rules (generally in Parts I, II, and IV of the Commission’s Rule of Practice). For example, staff estimates that the FTC annually receives approximately 15 requests for clearance submitted by former FTC employees in order to participate in certain matters and 5 screening affidavits submitted by partners or legal or business associates of former employees pursuant to Rule 4.1, 16 CFR 4.1.⁴ There are also procedures set out in Rule 4.11(e) for agency review of outside requests for Commission employee testimony, through compulsory process or otherwise, in cases or matters to which the agency is not a party. Rule 4.11(e) requires that a person who seeks such testimony submit a statement in support of the request. Staff estimates that agency personnel receive approximately 1 request per month or 12 per year. Other types of applications and notices are either infrequent or difficult to quantify. Nonetheless, in order to cover any potential “collection of information” for which separate clearance has not been sought, staff conservatively projects the FTC will receive 50 applications or notices per year. Staff estimates each respondent will incur, on average, approximately 2 hours of burden to submit an application or notice, resulting in a cumulative annual total of 100 burden hours (50 applications or notices x 2 burden hours).

Annual cost burden

Using the burden hours estimated above, staff estimates that the total annual labor cost, based on a conservative estimated average of \$425/hour for executives’ and attorneys’ wages, would be approximately \$42,500 (100 hours x \$425). There are no capital, start-up, operation, maintenance, or other similar costs to respondents.

(b) Complaint Systems: 379,728 hours

³ The “law enforcement” exception to the PRA excludes most items in this subcategory because they involve collecting information during the conduct of a Federal investigation, civil action, administrative action, investigation, or audit with respect to a specific party, or subsequent adjudicative or judicial proceedings designed to determine fines or other penalties. *See* 44 U.S.C. 3518(c)(1); 5 CFR 1320.4(a)(1)-(3).

⁴ Staff’s estimates do not include Rule 4.1 submissions that pertain to ongoing law enforcement matters. *See supra* note 3.

Consumer Response Center

Consumers can submit complaints about fraud and other practices to the FTC’s Consumer Response Center by telephone or through the FTC’s website. Telephone complaints and inquiries to the FTC are answered both by FTC staff and contractors. These telephone counselors ask for the same information that consumers would enter on the applicable forms available on the FTC’s website. For telephone inquiries and complaints, the FTC staff retains its previous estimates that it takes 4.5 minutes per call to gather information, somewhat less time than the 5 minutes estimated for consumers to enter a complaint online. The burden estimate conservatively assumes that all of the phone call is devoted to collecting information from consumers, although frequently telephone counselors devote a small portion of the call to providing requested information to consumers.

Complaints Concerning the National Do Not Call Registry

To receive complaints from consumers of possible violations of the rules governing the National Do Not Call Registry, 16 CFR 310.4(b), the FTC maintains both an online form and a toll free hotline with automated voice response system. Consumer complainants must provide either the name or telephone number of the company about which they are complaining, the phone number that was called, and the date of the call. They may also provide their name and address so they can be contacted for additional information, as well as for a brief comment regarding their complaint. In addition, online complainants have the option of answering three yes-or-no questions to help law enforcement investigating complaints; this option will also soon be made available to phone complainants. The FTC staff estimates that the time required of consumer complainants is 3.5 minutes for phone complaints and 2.5 minutes for online complaints.⁵

Identity Theft

To handle complaints about identity theft, the FTC must obtain more detailed information than is required of other complainants. Identity theft complaints generally require more information (such as a description of actions complainants have taken with credit bureaus, companies, and law enforcement, and the identification of

⁵ This is a slight increase from staff’s 2005 estimates because of additional information collected, such as comments and three optional yes-or-no questions.

multiple suspects) than general consumer complaints and fraud complaints. In addition, the FTC has expanded the information required on its online complaint form (such as collecting additional information about the fraudulent activity at affected companies and creating an attachment summarizing all of the fraudulent account activity as well as all fraudulent information on the consumer’s credit report). Consumers can print out a copy of the revised form and use it to assist them in completing a police report, if appropriate, and, as also may be necessary, an identity theft report. *See* 16 CFR 603.3 (defining the term “identity theft report”). FTC staff continues to estimate that the revised online form takes consumers up to 13 minutes to complete.

The FTC also made some revisions in the information it collects from consumers who call the Consumer Response Center (“CRC”) with identity theft complaints. Moreover, in order to better serve consumers who are unable to file complaints online, staff will send those who call the CRC with identify theft complaints a blank complaint form (identical to the online printed form) to assist them with completing a police or identify theft report as appropriate. Staff estimates that it will take 14 minutes per call to obtain identity theft-related information.⁶ A substantial portion of identity theft-related calls typically consists of counseling consumers on other steps they should consider taking to obtain relief (which may include directing consumers to a revised online complaint form). The time needed for counseling is excluded from the estimate.

Surveys

Consumer customer satisfaction surveys give the agency information about the overall effectiveness and timeliness of the CRC. The CRC surveys roughly 1 percent of complainants who file identity theft or general consumer complaints. Subsets of consumers contacted throughout the year are questioned about specific aspects of CRC customer service. Each consumer surveyed is asked several questions chosen from a list prepared by staff. The questions are designed to elicit information from consumers about the overall effectiveness of the call center. Half of the questions ask consumers to rate CRC performance on a scale or require a yes-or-no response. The second half of the survey asks more

⁶ This is a 5 minute increase from staff’s 2005 estimate in order to account for the time it will take consumers to fill out the blank complaint form.

open-ended questions seeking a short written or verbal answer. In addition, the CRC may survey a sample of consumers immediately after they file their complaints regarding the services they received. Staff retains its previous estimate that each respondent will require 4 minutes to answer the questions (approximately 20-30 seconds per question).

Finally, Consumer Sentinel user surveys give the agency information about the overall effectiveness of its Consumer Sentinel Network. Consumer Sentinel allows federal, state and local

law enforcement organizations common access to a secure database containing over six million complaints from victims of consumer fraud and identity theft, as well as other complaints the FTC collects. To date, Consumer Sentinel has over 1,700 members, including law enforcement agencies from Canada and Australia. FTC staff plan to survey a sizeable number of Consumer Sentinel users each year about such things as overall satisfaction, performance, and possible improvements. Staff retains its previous

estimate that the surveys should generally take approximately 10 minutes per respondent.

What follows are staff's estimates of burden for these various collections of information, including the surveys. The figures for the online forms and consumer hotlines are an average of annualized volume for the respective programs including both current and projected volumes over the 3-year clearance period sought and the number of respondents for each activity has been rounded to the nearest thousand.

Activity	# respondents	# minutes/activity	Total Hours
Misc. and fraud-related consumer complaints (phone)*	396,000	4.5	29,700
Misc. and fraud-related consumer complaints (online)**	520,000	5	43,333
Identity theft complaints (phone)*	385,700	14	89,997
Identity theft complaints (online)**	170,000	13	36,833
Do-Not-Call related consumer complaints (phone)	531,000	3.5	30,975
Do-Not-Call related consumer complaints (online)	3,548,000	2.5	147,833
Customer Satisfaction Questionnaire	9,600	4	640
Consumer Sentinel User Surveys	2,500	10	417
Totals	5,562,800		379,728

* Number of consumer calls calculated by projecting over the 3-year clearance period sought 5% annual growth and a telephone contractor response rate of 95% (contracted level of service) with regard to consumers who call the toll free lines and opt to talk to a counselor.

** Number of online collections projected from number of consumers who use the FTC's online complaint forms noted in the text above. These figures also assume 5% annual growth for miscellaneous and fraud-related complaints, and 8% annual growth for identity theft online complaints, over the 3-year clearance period requested.

Annual cost burden

The cost per respondent should be negligible. Participation is voluntary and will not require any labor expenditures by respondents. There are no capital, start-up, operation, maintenance, or other similar costs to the respondents.

(c) Program Evaluations: 175 hours

Review of Divestiture Orders

The Commission issues, on average, approximately 10-15 orders in merger cases per year that require divestitures. As a result of a 1999 study authorized by the OMB and conducted by the staffs of the Bureau of Competition ("BC") and the Bureau of Economics,⁷ BC monitors these required divestitures by interviewing representatives of the Commission-approved buyers of the divested assets within the first year after the divestiture is completed.

BC staff interviews representatives of the buyers to ask whether all assets required to be divested were, in fact, divested;⁸ whether the buyer has used the divested assets to enter the market of concern to the Commission and, if so, the extent to which the buyer is participating in the market; whether the divestiture met the buyer's expectations; and whether the buyer believes the divestiture has been successful. In some cases, BC staff may also interview other participants, including customers or trustee monitors, as appropriate. In all these interviews, staff seeks to learn about pricing and other basic facts regarding competition in the markets of concern to the FTC.

Participation by the buyers is voluntary. Each responding company designates the company representative most likely to have the necessary information; typically, a company executive and a lawyer represents the

company. Each interview takes approximately one hour to complete. BC staff further estimates that it takes each participant no more than one hour to prepare for the interview. In some instances, staff may do additional interviews with customers of the responding company or the monitor. Staff conservatively estimates that for each interview, two individuals (a company executive and a lawyer) will devote two hours (one hour preparing and one hour participating) each to responding to questions for a total of four hours. In addition, for approximately half of the divestitures, staff will seek to question two additional respondents, adding four participants (a company executive and a lawyer for each of the two additional respondents) devoting two hours each, for a total of eight additional hours. Assuming that staff evaluates up to 20 divestitures per year during the three-year clearance period, the total hours burden for the responding companies will be approximately 160 hours per year ((20 divestiture reviews x 4 hours for preparing and participating) + (10

⁷ The Staff of the Bureau of Competition of the Federal Trade Commission compiled its findings from the study in its report: *A Study of the Commission's Divestiture Process*, 1999, available at <http://www.ftc.gov/os/1999/08/divestiture.pdf>.

⁸ To the extent that the staff interviews focus on a law enforcement activity (whether the party to the order complied with all its obligations), the interviews are not subject to the requirements of the PRA. See *supra* note 3.

divestiture reviews x 8 hours for preparing and participating)).

Annual cost burden

Using the burden hours estimated above, staff estimates that the total annual labor cost, based on a conservative estimated average of \$425/hour for executives' and attorneys' wages, would be approximately \$68,000 (160 hours x \$425). There are no capital, start-up, operation, maintenance, or other similar costs to respondents.

Review of Competition Advocacy Program

The FTC's competition advocacy program draws on the Commission's expertise in competition and consumer protection matters to encourage federal and state legislators, courts and other state and federal agencies to consider the competitive effects of their proposed actions. The FTC Office of Policy Planning ("OPP") sends approximately 20 letters or written comments to different state and federal government officials annually, which provide guidance on the likely competitive effects of various laws or regulations.

In the past, OPP has evaluated the effectiveness of these advocacy comments by surveying comment recipients and other relevant decision makers. OPP intends to continue this evaluation by sending a written questionnaire to relevant parties between six and nine months after an advocacy comment is sent. Most of the questions ask the respondent to agree or disagree with a statement concerning the advocacy comment that they received. Specifically, these questions inquire as to the applicability, value, persuasive influence, public effect, and informative value of the FTC's comments. The questionnaire also provides respondents with an opportunity to provide additional remarks related either to the written comments received or the FTC's advocacy program in general. Participation is voluntary.

OPP staff estimates that on average, respondents will take 30 minutes or less to complete the questionnaire and 15 minutes of administrative time to prepare the response for mailing. Accordingly, staff estimates that each respondent will incur 45 minutes of burden resulting in a cumulative total of 15 burden hours per year (45 minutes of burden per respondent x 20 respondents per year). OPP staff does not intend to conduct any follow-up activities that would involve the respondents' participation.

Annual cost burden

OPP staff estimates a conservative hourly labor cost of \$100 for the time of the survey participants (primarily state representatives and senators) and an hourly labor cost of \$16 for administrative support time. Thus, staff estimates a total labor cost of \$54 for each response (30 minutes of burden at \$100 per hour plus 15 minutes of burden at \$16 per hour). Assuming 20 respondents will complete the questionnaire on an annual basis, staff estimates the total annual labor costs will be approximately \$1,080 (\$54 per response x 20 respondents). There are no capital, start-up, operation, maintenance, or other similar costs to respondents.

(d) Applicant Tracking Form: 292 hours

The FTC's Human Resources Management Office surveys job applicants on their ethnicity, race, and disability status in order to determine if recruitment is effectively reaching all aspects of the relevant labor pool, in compliance with management directives from the Equal Opportunity Employment Commission. Response by applicants is optional. The information obtained is used for evaluating recruitment only and plays no part in the selection of who is hired. The information is not provided to selecting officials. Instead, the information is used in summary form to determine trends over many selections within a given occupational or organizational area. The information is treated in a confidential manner. No information from the form is entered into the official personnel file of the individual selected and all forms are destroyed after the conclusion of the selection process. The format of the questions on ethnicity and race are compliant with OMB requirements and comparable to those used by other agencies.

Based upon past activity, the FTC staff estimates that up to 7,000 applicants will submit the form as part of the new online application process and that the form will require approximately 2.5 minutes to complete, for an annual burden total of approximately 292 hours (7000 applicants x 2.5 minutes to complete the form).

Annual cost burden

The cost per respondent should be negligible. Participation is voluntary and will not require any labor expenditures by respondents. There are no capital, start-up, operation,

maintenance, or other similar costs to the respondents.

William Blumenthal,
General Counsel.

[FR Doc. E8-24296 Filed 10-10-08; 8:45 am]

BILLING CODE 6750-01-S

FEDERAL TRADE COMMISSION

Agency Information Collection Activities; Proposed Collection; Comment Request

AGENCY: Federal Trade Commission ("Commission" or "FTC").

ACTION: Notice.

SUMMARY: The FTC plans to conduct a study to examine consumer perception of environmental marketing claims. This activity is part of the Commission's regulatory review of the Guides for the Use of Environmental Marketing Claims ("Green Guides" or "Guides"). Before gathering this information, the FTC is seeking public comments on the proposed study. Comments will be considered before the FTC submits a request for Office of Management and Budget ("OMB") review under the Paperwork Reduction Act ("PRA").

DATES: Comments must be received on or before December 15, 2008.

ADDRESSES: Interested parties are invited to submit written comments electronically or in paper form. Comments should refer to "Green Marketing Consumer Perception Study, Project No. P954501" to facilitate the organization of comments. Please note that comments will be placed on the public record of this proceeding—including on the publicly accessible FTC website, at (<http://www.ftc.gov/os/publiccomments.shtml>)—and therefore should not include any sensitive or confidential information. In particular, comments should not include any sensitive personal information, such as an individual's Social Security Number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. Comments also should not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, comments should not include any "[t]rade secrets and commercial or financial information obtained from a person and privileged or confidential . . .," as provided in Section 6(f) of the FTC Act, 15 U.S.C. 46(f), and Commission Rule 4.10(a)(2), 16 CFR 4.10(a)(2) (2008). Comments containing

material for which confidential treatment is requested must be filed in paper form, must be clearly labeled "Confidential," and must comply with FTC Rule 4.9(c).¹

Because paper mail addressed to the FTC is subject to delay due to heightened security screening, please consider submitting your comments in electronic form. Comments filed in electronic form should be submitted by using the following weblink: (<https://secure.commentworks.com/ftc-GreenGuidesReview>) (and following the instructions on the web-based form). To ensure that the Commission considers an electronic comment, you must file it on the web-based form at the weblink (<https://secure.commentworks.com/ftc-GreenGuidesReview>). If this Notice appears at (<http://www.regulations.gov/search/index.jsp>), you may also file an electronic comment through that website. The Commission will consider all comments that regulations.gov forwards to it. You may also visit the FTC website at <http://www.ftc.gov> to read the Notice and the news release describing it.

A comment filed in paper form should include the "Green Marketing Consumer Perception Study, Project No. P954501" reference both in the text and on the envelope, and should be mailed or delivered to the following address: Federal Trade Commission, Office of the Secretary, Room H-135 (Annex J), 600 Pennsylvania Avenue, NW, Washington, DC 20580. The FTC is requesting that any comment filed in paper form be sent by courier or overnight service, if possible, because U.S. postal mail in the Washington area and at the Commission is subject to delay due to heightened security precautions.

The FTC Act and other laws the Commission administers permit the collection of public comments to consider and use in this proceeding as appropriate. The Commission will consider all timely and responsive public comments that it receives, whether filed in paper or electronic form. Comments received will be available to the public on the FTC website, to the extent practicable, at (<http://www.ftc.gov/os/publiccomments.shtml>). As a matter of discretion, the Commission makes every effort to remove home contact

information for individuals from the public comments it receives before placing those comments on the FTC website. More information, including routine uses permitted by the Privacy Act, may be found in the FTC's privacy policy, at (<http://www.ftc.gov/ftc/privacy.shtml>).

FOR FURTHER INFORMATION CONTACT: Laura Koss, Attorney, 202-326-2890, or Michael J. Davis, Attorney, 202-326-2458, Division of Enforcement, Bureau of Consumer Protection, Federal Trade Commission.

SUPPLEMENTARY INFORMATION:

I. Background

The Commission issued the Green Guides, 16 CFR Part 260, to help marketers avoid making environmental claims that are unfair or deceptive under Section 5 of the FTC Act, 15 U.S.C. 45.² Guides are administrative interpretations of the law. Therefore, they do not have the force and effect of law and are not independently enforceable. The Guides, however, are the Commission's interpretation of Section 5 of the FTC Act as it applies to environmental marketing claims. The Commission, therefore, can take action under the FTC Act if a business makes environmental marketing claims inconsistent with the Guides. In any such enforcement action, the Commission must prove that the act or practice at issue is unfair or deceptive.

The Green Guides outline general principles that apply to all environmental marketing claims and provide guidance regarding specific categories of environmental claims. These categories include: general environmental benefit claims, such as "environmentally friendly"; degradable claims; compostable claims; recyclable claims; recycled content claims; source reduction claims; refillable claims; and ozone safe/ozone friendly claims. For each of these claims, the Green Guides explain how reasonable consumers are likely to interpret them. The Guides also describe the basic elements necessary to substantiate claims and present options for qualifying specific claims to avoid deception.³ The illustrative qualifications provide "safe harbors" for marketers who want certainty about how to make environmental claims, but do not represent the only permissible approaches to qualifying a claim.

II. Regulatory Review of the Green Guides

The Commission reviews all of its rules and guides periodically to examine their efficacy, costs, and benefits, and to determine whether to retain, modify, or rescind them. On November 26, 2007, the FTC commenced its review of the Green Guides and sought public comment.⁴ As part of this comprehensive review, the FTC also announced a series of public workshops to explore emerging environmental marketing issues and, through subsequent notices, opened public comment periods in connection with each workshop.⁵ The Commission sought comment on a number of issues, including the continuing need for and economic impact of the Guides, the effect of the Guides on the accuracy of environmental claims, and whether the Guides should illustrate certain environmental claims—such as carbon neutrality, sustainability, and renewability—not currently addressed in the Guides. The Commission also sought specific consumer survey evidence and consumer perception data addressing environmental claims. Few commenters submitted consumer survey evidence or consumer perception data. The Commission, therefore, is considering conducting its own consumer study related to consumer perception of environmental marketing claims. This study would aid the Commission in determining what revisions, if any, it should make to the Guides to ensure that the Guides are appropriately responsive to any changes in consumer perception of environmental claims.

III. Paperwork Reduction Act Notice

As required by Section 3506(c)(2)(A) of the PRA, 44 U.S.C. 3501-21, the FTC is providing this opportunity for public comment before requesting that OMB approve the study. Under the PRA, federal agencies must obtain OMB approval for each collection of information they conduct or sponsor. "Collection of information" means agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. 44 U.S.C. 3502(3); 5 CFR 1320.3(c).

Specifically, the FTC invites comments on: (1) whether the proposed collection of information is necessary

¹ FTC Rule 4.2(d), 16 CFR 4.2(d). The comment must be accompanied by an explicit request for confidential treatment, including the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. The request will be granted or denied by the Commission's General Counsel, consistent with applicable law and the public interest. See FTC Rule 4.9(c), 16 CFR 4.9(c) (2008).

² The Commission issued the Green Guides in 1992, 57 FR 36363, and subsequently revised them in 1996 (61 FR 53311) and 1998 (63 FR 24240).

³ The Guides do not, however, establish standards for environmental performance or prescribe testing protocols.

⁴ 72 FR 66091.

⁵ See 72 FR 66094, Carbon Offsets and Renewable Energy Certificates (held on January 8, 2008); 73 FR 11371, Green Packaging Claims (held on April 30, 2008); and 73 FR 32662, Green Building and Textiles (held on July 8, 2008).

for the proper performance of the functions of the FTC, including whether the information will have practical utility; (2) the accuracy of the FTC's estimate of the burden of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of collecting information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.*, permitting electronic submission of responses. All comments should be filed as prescribed in the **ADDRESSES** section above, and must be received on or before December 15, 2008.

IV. FTC's Proposed Study of Consumer Perception

The FTC proposes to collect information from up to 7,000 consumers in order to gather data on consumer perception of environmental marketing claims. All information will be collected on a voluntary basis. The FTC plans to contract with a consumer research firm to identify consumers and conduct the study via the Internet. Among other things, the research firm will be expected to study a stratified sample of the adult United States population broadly representative of consumer group characteristics (*e.g.*, geographic location, housing characteristics, gender, age, education, and race/ethnicity), relative to the most recent Census Bureau Current Population Survey.

The FTC expects that selected respondents will be asked questions about a number of express or implied environmental marketing claim concepts, such as "renewable" and "sustainable." Each concept may be featured in a separate module of questions. Such questions may explore perceptions about the unqualified general concept and variations on the concept. The results will assist the FTC in its review of the Green Guides by helping to ensure that the Green Guides are consistent with consumer perception of environmental marketing claims.

The FTC is considering pre-testing the consumer questionnaires on approximately 100 respondents to ensure that all questions are easily

understood. The FTC expects that the pre-test would take approximately 25 minutes on average per person, approximately 42 hours total (100 respondents x 25 minutes each). Once the pretest is completed, the FTC plans to seek information from up to 7,000 respondents for approximately 25 minutes each. Thus, answering the FTC's information requests will require up to 2,917 hours total (7,000 respondents x 25 minutes each). Accordingly, cumulative total burden hours for the survey will be approximately 3,000 hours.

The cost per respondent should be negligible. Participation is voluntary and will not require start-up, capital, or labor expenditures by respondents.

By direction of the Commission.

Donald S. Clark,
Secretary.

[FR Doc. E8-24339 Filed 10-10-08; 8:45 am]

BILLING CODE 6750-01-S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

[Document Identifier: OS-0990-New; 30-day notice]

Agency Information Collection Request. 30-Day Public Comment Request

AGENCY: Office of the Secretary, HHS.

In compliance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Office of the Secretary (OS), Department of Health and Human Services, is publishing the following summary of a proposed collection for public comment. Interested persons are invited to send comments regarding this burden estimate or any other aspect of this collection of information, including any of the following subjects: (1) The necessity and utility of the proposed information collection for the proper performance of the agency's functions; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

To obtain copies of the supporting statement and any related forms for the

proposed paperwork collections referenced above, e-mail your request, including your address, phone number, OMB number, and OS document identifier, to Sherette.funncoleman@hhs.gov, or call the Reports Clearance Office on (202) 690-5683. Send written comments and recommendations for the proposed information collections within 30 days of this notice directly to the OS OMB Desk Officer; faxed to OMB at 202-395-6974.

Proposed Project: Evaluating Institutions Research Misconduct Education Efforts—OMB No. 0990-NEW—Office of Research Integrity.

Abstract: The Office of Research Integrity (ORI) is conducting this study of Research Misconduct Education in medical schools because these institutions are responsible for dissemination of information and guidelines to their faculty, staff, and students concerning the U.S. Public Health Service (PHS) Policies on Research Misconduct (42 CFR Part 93). The ORI review of institutional research misconduct policies, investigation reports, requests for technical assistance in handling allegations, and analyses of filings of the Annual Report on Possible Research Misconduct (PHS 6349) have raised questions about the level of knowledge of medical school faculty conducting research and responding to allegations, and the faculty's perception of their institution's commitment to dealing with research misconduct. This study is designed to evaluate the knowledge of medical school faculty members about their institution's policies and procedures and identify best practices and approaches used by medical institutions to produce the most positive perceptions of commitment and the best understanding of research misconduct. Also, the study will identify the areas of responsibility and specify the activities that institutions perform in the process of educating their employees to the meaning of scientific misconduct at their institutions.

This will involve a one-time data collection effort. These researchers have been identified from a list of medical school principal investigators (PIs) that we obtained from the National Institutes of Health (NIH). All received NIH research projects awards in 2005 or 2006.

ESTIMATED ANNUALIZED BURDEN HOURS

Forms	Number of respondents	Number of responses per respondent	Average burden hours per response	Total burden hours
Recruit Letters	10,754	1	15/60	2,689
Web Survey	10,754	1	20/60	3,585
Total				6,274

Seleda Perryman,

Office of the Secretary, Paperwork Reduction Act Reports Clearance Officer.

[FR Doc. E8-24297 Filed 10-10-08; 8:45 am]

BILLING CODE 4150-31-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Healthcare Research and Quality (AHRQ), Office for Civil Rights (OCR)

Implementing the Patient Safety and Quality Improvement Act of 2005 Including How to Become a Patient Safety Organization: Interim Guidance Availability

October 14, 2008.

AGENCY: Agency for Healthcare Research and Quality (AHRQ), Office for Civil Rights (OCR), HHS.

ACTION: Notice of Availability.

SUMMARY: AHRQ and OCR are announcing the availability of the guidance entitled "Implementing the Patient Safety and Quality Improvement Act of 2005 Including How to Become a Patient Safety Organization." The Interim Guidance document explains how the Department of Health and Human Services (HHS) will begin implementing the Patient Safety and Quality Improvement Act of 2005 (Patient Safety Act), how an entity can become a Patient Safety Organization (PSO), and how information may be protected as Patient Safety Work Product (PSWP) in the interim period prior to the promulgation of a final regulation. To access the Interim Guidance, visit AHRQ's PSO Web site at <http://www.pso.ahrq.gov>.

DATES: The Interim Guidance is effective immediately with the publication of this notice. The Interim Guidance will remain effective until the effective date of the final regulation, which is expected to be promulgated before the end of 2008.

SUPPLEMENTARY INFORMATION:

I. Background

The Interim Guidance document is intended to inform private, public and

nonprofit health care communities, the legal community and others of HHS's policies and procedures for implementing the Patient Safety Act, prior to the promulgation of a final regulation. This Interim Guidance interprets the Patient Safety Act. The Patient Safety Act (Pub. L. 109-41) amended the Public Health Service Act (42 U.S.C. 299 *et seq.*) by renumbering existing sections and inserting new sections 921 through 926 (42 U.S.C. 299b-21 through 299b-26). The Patient Safety Act authorizes the listing by the Secretary of statutorily defined PSOs. PSOs are to carry out statutorily defined patient safety activities on behalf of providers in order to assist them to improve patient safety. To encourage providers to submit information to PSOs and PSOs to conduct analyses regarding patient safety, the statute establishes privilege and confidentiality protections to protect certain information, including information collected by providers for sharing with PSOs for analysis, analyses performed by the providers and/or the PSOs, and information shared between the PSOs and the health care providers they serve. This information is defined in the statute as PSWP.

II. Significance of the Interim Guidance

The Interim Guidance establishes the process by which the Secretary will list PSOs. Once PSOs are listed by the Secretary, providers can: (1) Voluntarily submit information to PSOs, and (2) seek PSOs' analysis of patient safety events. These activities should lead to improvements in patient safety. The protections established by the Patient Safety Act will permit and encourage numerous providers to submit pertinent data to PSOs so that the PSOs will be able to aggregate and analyze the data from multiple providers, thus enabling the identification of patterns that could suggest underlying or systemic causes of patient risks and hazards that then can be addressed to improve patient safety and quality.

III. Paperwork Reduction Act of 1995

The listing of PSOs under the Interim Guidance involves collecting of information that is subject to review by

the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520). These collections of information have been approved under OMB control number 0935-0143.

Dated: October 7, 2008.

Ann C. Agnew,

Executive Secretary to the Department.

[FR Doc. E8-24267 Filed 10-8-08; 4:15 pm]

BILLING CODE 4153-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2008-N-0448]

International Drug Scheduling; Convention of Psychotropic Substances; Single Convention on Narcotic Drugs; Gamma-hydroxybutyric acid; Ketamine; Dextromethorphan; N-benzylpiperazine; 1-(3-trifluoromethylphenyl) piperazine; 1-(3-chlorophenyl) piperazine; 1-(4-methoxyphenyl) piperazine; 1-(3,4-methylenedioxybenzyl) piperazine; Gamma-butyrolactone; 1,4-Butanediol; Reopening of Comment Period

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice; reopening of comment period.

SUMMARY: The Food and Drug Administration (FDA) is reopening until October 20, 2008, the comment period for the notice on "International Drug Scheduling; Convention on Psychotropic Substances; Single Convention on Narcotic Drugs," published in the **Federal Register** of September 5, 2008 (73 FR 51823), requesting comments on abuse potential, actual abuse, medical usefulness, trafficking, and impact of scheduling changes on availability for medical use of 10 drug substances. FDA is taking this action in response to a request for a reopening of the comment period to allow interested persons additional time to review the notice and submit comments.

DATES: Submit written or electronic comments by October 20, 2008.

ADDRESSES: Submit written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT:

James R. Hunter, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, rm. 5146, Silver Spring, MD 20993-0002, 301-796-3156, e-mail: james.hunter@fda.hhs.gov.

SUPPLEMENTARY INFORMATION:

I. Background

The United States is a party to the 1971 Convention on Psychotropic Substances (the Psychotropic Convention). Article 2 of the Psychotropic Convention provides that if a party to the convention or the World Health Organization (WHO) has information about a substance, which in its opinion may require international control or changes in such control, it should notify the Secretary-General of the United Nations (the Secretary-General) and provide the Secretary-General with information in support of its opinion.

The Controlled Substances Act (21 U.S.C. 811 *et seq.*) (Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970) provides that when WHO notifies the United States under Article 2 of the Psychotropic Convention that it has information that may justify: (1) Adding a drug or other substance to one of the schedules of the convention, (2) transferring a drug or substance from one schedule to another, or (3) deleting it from the schedules, the Secretary of State must transmit the notice to the Secretary of Health and Human Services (the Secretary of HHS). The Secretary of HHS must then publish the notice in the **Federal Register** and provide opportunity for interested persons to submit comments that HHS will consider in its preparation of the scientific and medical evaluations of the drug or substance.

In the **Federal Register** of September 5, 2008 (73 FR 51823), FDA published a notice requesting comments on the abuse potential, actual abuse, medical usefulness, trafficking, and impact of scheduling changes on availability for medical use of 10 drug substances. These comments will be considered in preparing the United States' response to WHO regarding the abuse liability and diversion of these drugs. WHO will use

this information to consider whether to recommend that certain international restrictions be placed on these drugs.

Interested persons were originally given until October 6, 2008, to comment on the 10 named drug substances.

II. Request for Comments

Following publication of the September 5, 2008, notice, FDA received a request to allow interested persons additional time to comment. The requester asserted that the time period for comments was insufficient to respond fully to FDA's specific request for comments and to allow potential respondents to thoroughly evaluate and address pertinent issues. Therefore, FDA has decided to reopen the comment period on the notice until October 20, 2008, to allow the public more time to review and comment on its contents.

III. How to Submit Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding the ten drug substances. Submit a single copy of electronic comments to <http://www.regulations.gov> or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Please note that on January 15, 2008, the FDA Division of Dockets Management Web site transitioned to the Federal Dockets Management System (FDMS). FDMS is a Government-wide, electronic docket management system. Electronic comments or submissions will be accepted by FDA only through FDMS at <http://www.regulations.gov>.

Dated: October 7, 2008.

Jeffrey Shuren,

Associate Commissioner for Policy and Planning.

[FR Doc. E8-24264 Filed 10-10-08; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2008-N-0038]

Joint Meeting of the Anesthetic and Life Support Drugs Advisory Committee and the Drug Safety and Risk Management Advisory Committee; Notice of Meeting

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

This notice announces a forthcoming meeting of a public advisory committee of the Food and Drug Administration (FDA). At least one portion of the meeting will be closed to the public.

Name of Committees: Anesthetic and Life Support Drugs Advisory Committee and the Drug Safety and Risk Management Advisory Committee.

General Function of the Committees: To provide advice and recommendations to the agency on FDA's regulatory issues.

Date and Time: The meeting will be held on November 13 and 14, 2008, from 8 a.m. to 4:30 p.m.

Location: Holiday Inn, The Ballrooms, Two Montgomery Village Ave., Gaithersburg, MD. The hotel phone number is 301-948-8900.

Contact Person: Kalyani Bhatt, Center for Drug Evaluation and Research (HFD-21), Food and Drug Administration, 5600 Fishers Lane, (for express delivery, 5630 Fishers Lane, rm. 1093) Rockville, MD 20857, 301-827-7001, FAX: 301-827-6776, e-mail:

Kalyani.Bhatt@fda.hhs.gov, or FDA Advisory Committee Information Line, 1-800-741-8138 (301-443-0572 in Washington, DC area), codes 3014512529 or 3014512535. Please call the Information Line for up-to-date information on this meeting. A notice in the **Federal Register** about last minute modifications that impact a previously announced advisory committee meeting cannot always be published quickly enough to provide timely notice. Therefore, you should always check the agency's Web site and call the appropriate advisory hot line/phone line to learn about possible modifications before coming to the meeting.

Agenda: On November 13 and 14, 2008, the committees will begin with a closed session, from 8 a.m. to 9:15 a.m. Following the closed session, from 9:15 a.m. to 4:30 p.m., the meeting will be open to the public. On November 13, 2008, the committees will discuss new drug application (NDA) 22-324,

REMOXY XRT (oxycodone hydrochloride controlled-release) Capsules, Pain Therapeutics Inc., and its safety for the proposed indication of management of moderate to severe pain when a continuous, around-the-clock analgesic is needed for an extended period of time. The controlled-release characteristics of this formulation are purportedly less easily defeated than other formulations of controlled-release oxycodone. On November 14, 2008, the committees will discuss new drug application NDA 22-321, EMBEDA (morphine sulfate extended-release with sequestered naltrexone hydrochloride) Capsules, Alpharma Pharmaceuticals L.L.C., and its safety for the proposed indication of management of moderate to severe chronic pain. The naltrexone component of this formulation is intended to mitigate abuse of the product when attempts are made to defeat the controlled-release properties of the formulation.

FDA intends to make background material available to the public no later than 2 business days before the meeting. If FDA is unable to post the background material on its Web site prior to the meeting, the background material will be made publicly available at the location of the advisory committee meeting, and the background material will be posted on FDA's Web site after the meeting. Background material is available at <http://www.fda.gov/ohrms/dockets/ac/acmenu.htm>, click on the year 2008 and scroll down to the appropriate advisory committee link.

Procedure: On November 13 and 14, 2008, from 9:15 a.m. to 4:30 p.m., the meeting is open to the public. Interested persons may present data, information, or views, orally or in writing, on issues pending before the committee. Written submissions may be made to the contact person on or before October 28, 2008. Oral presentations from the public will be scheduled between approximately 1 p.m. and 2 p.m. each day. Those desiring to make formal oral presentations should notify the contact person and submit a brief statement of the general nature of the evidence or arguments they wish to present, the names and addresses of proposed participants, and an indication of the approximate time requested to make their presentation on or before October 20, 2008. Time allotted for each presentation may be limited. If the number of registrants requesting to speak is greater than can be reasonably accommodated during the scheduled open public hearing session, FDA may conduct a lottery to determine the speakers for the scheduled open public hearing session. The contact person will

notify interested persons regarding their request to speak by October 21, 2008.

Closed Committee Deliberations: On November 13 and 14, 2008, from 8 a.m. to 9:15 a.m., the meeting will be closed to permit discussion and review of trade secret and/or confidential information (5 U.S.C. 552b(c)(4)). During these sessions, the committees will discuss the details of proprietary research reports and protocols addressing characteristics of different formulations.

Persons attending FDA's advisory committee meetings are advised that the agency is not responsible for providing access to electrical outlets.

FDA welcomes the attendance of the public at its advisory committee meetings and will make every effort to accommodate persons with physical disabilities or special needs. If you require special accommodations due to a disability, please contact Kalyani Bhatt 301-827-7001 at least 7 days in advance of the meeting. FDA is committed to the orderly conduct of its advisory committee meetings. Please visit our Web site at <http://www.fda.gov/oc/advisory/default.htm> for procedures on public conduct during advisory committee meetings.

Notice of this meeting is given under the Federal Advisory Committee Act (5 U.S.C. app. 2).

Dated: October 6, 2008.

Randall W. Lutter,

Deputy Commissioner for Policy.

[FR Doc. E8-24263 Filed 10-10-08; 8:45 am]

BILLING CODE 4160-01-S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Special Emphasis Panel Program on Contraception and Reproductive Health Research.

Date: November 6, 2008.

Time: 8:30 a.m. to 6 p.m.

Agenda: To review and evaluate grant applications.

Place: Gaithersburg Hilton, 620 Perry Parkway, Gaithersburg, MD 20877.

Contact Person: Peter Zelazowski, PhD, Scientific Review Officer, Division of Scientific Review, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, 6100 Executive Boulevard, Rm. 5B01, Bethesda, MD 20892-7510, 301-435-6902, peter.zelazowski@nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: October 7, 2008.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. E8-24295 Filed 10-10-08; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Initial Review Group; Population Sciences Subcommittee.

Date: November 6-7, 2008.

Time: 8 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: Renaissance Mayflower Hotel, 1127 Connecticut Avenue, NW., Washington, DC 20036.

Contact Person: Carla T. Walls, PhD, Scientific Review Administrator, Division of Scientific Review, National Institute of Child Health and Human Development, NIH, 6100 Executive Blvd., Room 5b01, Bethesda, MD 20892, (301) 435-6898, wallsc@mail.nih.gov. (Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research; 93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: October 7, 2008.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. E8-24306 Filed 10-10-08; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Child Health and Human Development Initial Review Group; Biobehavioral and Behavioral Sciences Subcommittee.

Date: November 5-6, 2008.

Time: 9 a.m. to 6 p.m.

Agenda: To review and evaluate grant applications.

Place: Holiday Inn Georgetown, 2101 Wisconsin Avenue, NW., Washington, DC 20007.

Contact Person: Marita R. Hopmann, PhD, Scientific Review Administrator, Division of Scientific Review, National Institute of Child Health and Human Development, NIH, 6100 Executive Boulevard, Room 5B01, Bethesda, MD 20892, (301) 435-6911, hopmannm@mail.nih.gov.

(Catalogue of Federal Domestic Assistance Program Nos. 93.864, Population Research;

93.865, Research for Mothers and Children; 93.929, Center for Medical Rehabilitation Research; 93.209, Contraception and Infertility Loan Repayment Program, National Institutes of Health, HHS)

Dated: October 7, 2008.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. E8-24307 Filed 10-10-08; 8:45 am]

BILLING CODE 4140-01-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[USCG-2008-1009]

Information Collection Request to Office of Management and Budget; OMB Control Number: 1625-0035

AGENCY: Coast Guard, DHS.

ACTION: Sixty-day notice requesting comments.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995, the U.S. Coast Guard intends to submit an Information Collection Request (ICR) and Analysis to the Office of Management and Budget (OMB) requesting an extension of their approval for the following collection of information: 1625-0035, Title 46 CFR Subchapter Q: Lifesaving, Electrical, and Engineering Equipment, Construction and Materials & Marine Sanitation Devices (33 CFR part 159). Before submitting this ICR to OMB, the Coast Guard is inviting comments as described below.

DATES: Comments must reach the Coast Guard on or before December 15, 2008.

ADDRESSES: To avoid duplicate submissions to the docket [USCG-2008-1009], please use only one of the following means:

(1) *Online:* <http://www.regulations.gov>.

(2) *Mail:* Docket Management Facility (DMF) (M-30), U.S. Department of Transportation (DOT), West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001.

(3) *Hand deliver:* Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

(4) *Fax:* 202-493-2251.

The DMF maintains the public docket for this notice. Comments and material received from the public, as well as documents mentioned in this notice as being available in the docket, will

become part of this docket and will be available for inspection or copying at room W12-140 on the West Building Ground Floor, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find this docket on the Internet at <http://www.regulations.gov>.

A copy of the completed ICR is available through this docket on the Internet at <http://www.regulations.gov>. Additionally, copies are available from Commandant (CG-611), U.S. Coast Guard Headquarters, (Attn: Mr. Arthur Requena), 2100 2nd Street, SW., Washington, DC 20593-0001. The telephone number is 202-475-3523.

FOR FURTHER INFORMATION CONTACT: Mr. Arthur Requena, Office of Information Management, telephone 202-475-3523, or fax 202-475-3929, for questions on these documents. Contact Ms. Renee V. Wright, Program Manager, Docket Operations, 202-366-9826, for questions on the docket.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

The Coast Guard invites comments on whether this information collection request should be granted based on it being necessary for the proper performance of Departmental functions. In particular, the Coast Guard would appreciate comments addressing: (1) The practical utility of the collections; (2) the accuracy of the estimated burden of the collections; (3) ways to enhance the quality, utility, and clarity of information subject to the collections; and (4) ways to minimize the burden of collections on respondents, including the use of automated collection techniques or other forms of information technology.

We encourage you to respond to this request by submitting comments and related materials. We will post all comments received, without change, to <http://www.regulations.gov>. They will include any personal information you provide. We have an agreement with DOT to use their DMF. Please see the paragraph on DOT's "Privacy Act Policy" below.

Submitting comments: If you submit a comment, please include the docket number [USCG-2008-1009], indicate the specific section of the document to which each comment applies, providing a reason for each comment. We recommend you include your name, mailing address, an e-mail address, or other contact information in the body of your document so that we can contact you if we have questions regarding your

submission. You may submit your comments and material by electronic means, mail, fax, or delivery to the DMF at the address under **ADDRESSES**; but please submit them by only one means. If you submit them by mail or delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change the documents supporting this collection of information or even the underlying requirements in view of them.

Viewing comments and documents: Go to <http://www.regulations.gov> to view documents mentioned in this notice as being available in the docket. Enter the docket number [USCG–2008–1009] in the Search box, and click, “Go>>.” You may also visit the DMF in room W12–140 on the West Building Ground Floor, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Privacy Act: Anyone can search the electronic form of all comments received in dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act Notice regarding our public dockets in the January 17, 2008 issue of the **Federal Register** (73 FR 3316).

Information Collection Request

Title: Title 46 CFR Subchapter Q: Lifesaving, Electrical, and Engineering Equipment, Construction and Materials & Marine Sanitation Devices (33 CFR part 159).

OMB Control Number: 1625–0035.

Summary: This information is used by the Coast Guard to ensure regulations governing specific types of safety equipment, material, and Marine Sanitation Devices (MSDs) installed on commercial vessels and pleasure craft are met. Manufacturers are required to submit drawings, specifications, and laboratory test reports to the Coast Guard before any approval is given.

Need: Sections 2103, 3306, 3703, and 4302 of 46 U.S.C. authorize the Coast Guard to establish safety equipment and material regulations. These regulations are contained in 46 CFR parts 159 to 164. Section 1322 of 33 U.S.C. authorizes the Coast Guard to establish MSD regulations that are contained in 33 CFR part 159. This information will be used to determine whether

manufacturers are in compliance with Coast Guard regulations. When the Coast Guard approves any safety equipment, material, or MSD for use on a commercial vessel or pleasure craft, the manufacturer is issued a Certificate of Approval.

Forms: CGHQ–10030, USCG Certificate of Approval.

Respondents: Manufacturers of safety equipment, materials, and marine sanitation devices.

Frequency: On occasion.

Burden Estimate: The estimated burden has increased from 20,529 hours to 103,121 per year.

Dated: October 7, 2008.

D.T. Glenn,

Rear Admiral, U.S. Coast Guard, Assistant Commandant for Command, Control, Communications, Computers and Information Technology.

[FR Doc. E8–24329 Filed 10–10–08; 8:45 am]

BILLING CODE 4910–15–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2008–1004]

Great Lakes Regional Waterways Management Forum

AGENCY: Coast Guard, DHS.

ACTION: Notice of meeting.

SUMMARY: The Great Lakes Regional Waterways Management Forum will hold a meeting in Cleveland, OH, to discuss various waterways management issues. Potential agenda items may include agency updates from the Canadian Coast Guard Central and Arctic Region, Army Corps of Engineers, Transport Canada Marine Safety and the U.S. Coast Guard, Ballast Water Program Updates, Dry Cargo Residue Rulemaking Updates, Overview of the Ice Conference and Optimizing our Aids to Navigation systems. The meeting will be open to the public. The specific agenda is still under development. Additional topics of discussion are solicited from the public. Comments must be submitted on or before October 10, 2008, to be considered at the meeting.

DATES: The meeting will be held on Thursday, October 23, 2008, from 8:30 a.m. to 12 p.m.

ADDRESSES: The meeting will be held at the Cleveland Downtown Marriott, 127 Public Square, Cleveland, OH. Any written comments and materials should be submitted to Commander (dpw-1), Ninth Coast Guard District, 1240 E. 9th Street, Room 2069, Cleveland, OH

44199. This notice may be viewed online at <http://www.regulations.gov>, docket USCG–2008–1004.

FOR FURTHER INFORMATION CONTACT: LT Ann Henkelman (dpw-1), Ninth Coast Guard District, 1240 E. 9th Street, Room 2069, Cleveland, OH 44199, telephone (216) 902–6288. Persons with disabilities requiring assistance to attend this meeting should contact LT Henkelman.

SUPPLEMENTARY INFORMATION: The Great Lakes Waterways Management Forum identifies and resolves waterways management issues that involve the Great Lakes region. The forum is chaired by the Commander, Ninth Coast Guard District; the Ontario Regional Director, Transport Canada, Marine Safety; the Commander, Army Corps of Engineers Great Lakes and Ohio River Division; and the Canadian Coast Guard Director of the Central and Arctic Region and meets once a year to assess the Great Lakes region, assign priorities to areas of concern, and identify issues for resolution.

Dated: October 2, 2008.

Dave R. Callahan,

Captain, U.S. Coast Guard, Chief of Staff, Ninth Coast Guard District, Cleveland, Ohio.

[FR Doc. E8–24330 Filed 10–10–08; 8:45 am]

BILLING CODE 4910–15–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R3–ES–2008–N0252; 30120–1113–0000–F6]

Endangered and Threatened Species Permit Applications

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability of permit applications; request for comments.

SUMMARY: The following applicants have applied for permits to conduct certain activities with endangered species.

DATES: We must receive written comments on or before November 13, 2008.

ADDRESSES: Send written comments to the Regional Director, Attn: Peter Fasbender, U.S. Fish and Wildlife Service, Ecological Services, 1 Federal Drive, Fort Snelling, MN 55111–4056; electronic mail, permitsR3ES@fws.gov.

FOR FURTHER INFORMATION CONTACT: Peter Fasbender (612) 713–5343.

SUPPLEMENTARY INFORMATION:

Endangered Species

The Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), with some exceptions, prohibits activities affecting endangered species unless authorized by a permit from the Fish and Wildlife Service. Before issuing a permit, we invite public comment on it. Accordingly, we invite public comment on the following applicants' permit applications for certain activities with endangered species authorized by section 10(a)(1)(A) of the Act and the regulations governing the taking of endangered species (50 CFR 17). Submit your written data, comments, or request for a copy of the complete application to the address shown in **ADDRESSES**.

Permit Number: TE187501

Applicant: Hocking College, Nelsonville, Ohio.

The applicant requests a permit to take Indiana bats (*Myotis sodalis*) throughout the State of Ohio in conjunction with the Ohio Department of Transportation roadway projects. The applicant requests authorization to conduct presence/absence surveys; assess habitat characteristics associated with foraging, roosting and rearing of offspring; and evaluate the ecology of adult and juvenile bats. Proposed "take" is in the form of capturing, handling, and radiotagging. Proposed research activities are aimed at enhancement of recovery of the species in the wild.

Permit Number: TE191225

Applicant: Kathleen A. Dunlap, Columbus, Ohio.

The applicant requests a permit to take Indiana bats (*Myotis sodalis*) throughout the States of Ohio, Indiana, Michigan, Kentucky, and West Virginia. The activities proposed involve capture using mist nets and harp traps and marking of individual bats to identify populations of this listed species and to develop methods to minimize or avoid project-related impacts. Applicant seeks to provide site assessments and pre-construction surveys for projects such as highway and other development projects. Survey data are used to assist with development of project design features aimed at enhancement of survival of the species in the wild.

Permit Number: TE838715

Applicant: The Nature Conservancy, Swanton, Ohio.

The applicant requests a renewal of their permit to take Karner blue butterflies (*Lycaeides melissa samuelis*) at the Kitty Todd Nature Preserve in Northwest Ohio. The activities proposed

involve habitat management in the form of prescribed burning, mowing, exotic species control, woody plant control, establishment of oaks, and management of plant community succession. Specified habitat management activities are proposed to enhance the survival of this disturbance-dependent species in the wild.

Permit Number: TE192348

Applicant: USDA-U.S. Forest Service, Mark Twain National Forest, Rolla, Missouri.

The applicant requests a permit to take (harass) Indiana bats (*Myotis sodalis*), Gray bats (*Myotis grisescens*), and Ozark big-eared bats (*Corynorhinus townsendii ingens*). The applicant proposes to survey and inventory cave resources throughout the Mark Twain National Forest. Disturbance to bats may occur while entering these caves. No direct handling of bats is proposed; disturbance may occur through temporary arousal of hibernating bats. Activities are proposed to enhance the survival of the species in the wild by providing biological data regarding status of bats within cave resources in the forest.

Permit Number: TE193614

Applicant: Mainstream Commercial Divers, Inc., Murray, Kentucky.

The applicant requests a permit renewal to take listed mussel species throughout Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Minnesota, Mississippi, Missouri, Ohio, Pennsylvania, Tennessee, West Virginia, and Wisconsin. Activities include diving surveys to determine presence/absence of listed species involving capture and temporary holding of specimens for identification purposes. Data collected will assist entities involved in construction projects, such as bridge projects and others, in implementing measures to protect species in the design of their projects. Therefore, the scientific research is aimed at enhancement of survival of the species in the wild.

Permit Number: TE194099

Applicant: Dr. Michael A. Hoggarth, Otterbein College, Westerville, Ohio.

The applicant requests a permit renewal to take listed mussel species throughout the State of Ohio. Take activities include surveys to determine presence/absence and to monitor populations of listed species. This involves capture, temporary holding of specimens, and release at or near the location of capture. Status surveys and monitoring data collected will assist the

State Wildlife Agency and the U.S. Fish and Wildlife Service in recovery activities for the species. Therefore, the scientific research is aimed at enhancement of survival of the species in the wild.

Permit Number: TE195082

Applicant: Dr. Thomas E. Tomasi, Missouri State University, Springfield, Missouri.

The applicant requests a permit renewal to take Indiana bats (*Myotis sodalis*) and Gray bats (*Myotis grisescens*) in selected locations within New York, Pennsylvania, and Missouri. While these endangered bats are not the direct subject of the research, take is possible in the form of disturbance to hibernation by arousal while conducting pathology studies for little brown bats. Data collected will assist in the study of an apparent disease epidemic (white nose syndrome) in the bat community. Through collection of important epidemiological data, this scientific research is aimed at enhancement of survival of the species in the wild.

Public Comments

We solicit public review and comments on these permit applications. Please refer to the permit number when you submit comments. Comments and materials we receive are available for public inspection, by appointment, during normal business hours at the address shown in the **ADDRESSES** section. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

National Environmental Policy Act (NEPA)

In compliance with NEPA (42 U.S.C. 4321 *et seq.*), we have made an initial determination that the activities proposed in these permits are categorically excluded from the requirement to prepare an environmental assessment or environmental impact statement.

Dated: September 22, 2008.

Lynn M. Lewis,

Assistant Regional Director, Ecological Services, Region 3, Fort Snelling, Minnesota.

[FR Doc. E8-24251 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****[FWS-R4-ES-2008-N0131; 41545-1261-0000-D2]****Interagency Florida Panther Response Plan****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Notice of availability: environmental assessment and finding of no significant impact for the Interagency Florida Panther Response Plan.**SUMMARY:** We, the Fish and Wildlife Service, announce our decision and the availability of the Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for our Interagency Florida Panther Response Plan. Our EA considers alternatives for managing conflicts between humans and the endangered Florida panther (*Puma concolor coryi*), in accordance with the National Environmental Policy Act of 1969, as amended.**ADDRESSES:** A copy of the EA and FONSI may be obtained by writing to: Layne Hamilton, Refuge Manager, Florida Panther and Ten Thousand Islands National Wildlife Refuges, 3860 Tollgate Boulevard, Suite 300, Naples, FL 34114, or Elizabeth Souheaver, Area II Supervisor, Southeast Regional Office, Fish and Wildlife Service, 1875 Century Boulevard, Suite 420, Atlanta, GA 30345. The EA and/or FONSI may also be accessed and downloaded from the Service's Internet Web site: <http://www.fws.gov/verobeach/>.**FOR FURTHER INFORMATION CONTACT:** Ms. Layne Hamilton, at address in**ADDRESSES**, or at 239-353-8442, extension 227 (telephone), or Ms. Elizabeth Souheaver, Area II Supervisor, at address in **ADDRESSES**, or at 404-679-7163 (telephone).**SUPPLEMENTARY INFORMATION:** With this notice, we announce our decision and availability of the final EA and FONSI for the Interagency Florida Panther Response Plan in accordance with the National Environmental Policy Act's (NEPA's) implementing regulations at 40 CFR 1506.6 (b). We released a draft of the plan to the public as a Draft EA for "Guidelines for Living with Florida Panther and the Interagency Florida Panther Response Plan," and requested comments in a notice in the **Federal Register** on May 25, 2006 (71 FR 30156). To improve the quality and credibility of the scientific information, we also conducted a formal peer review process for the draft plan. Responses to public,tribal, and peer review comments were included in the Revised EA appendices. On November 2, 2007, we released the Revised EA and the Interagency Florida Panther Response Plan to the public, requesting comments via a **Federal Register** notice (72 FR 62256). We have included responses to specific comments in the Final EA appendices. We have coordinated this proposal with the National Park Service, the Florida Fish and Wildlife Conservation Commission, and local Indian tribes.The Draft, Revised, and Final EAs identified and evaluated three alternatives for managing the conflicts between humans and the endangered Florida panther (*Puma concolor coryi*). Alternative A (Preferred Action) manages human-panther interactions with an interagency response team and an established plan that prioritizes public safety and evaluates each situation by analyzing panther behavior and human activity. Alternative B (No Action) does not utilize an interagency team or a response plan, but responds to human-panther interactions on a case-by-case basis without established protocols or guidelines. Alternative C includes a response team and a plan that differs from Alternative A by providing rigid protocols based on frequency of panther sightings and proximity to human-occupied structures, without considering panther behavior or influences of human activity on panther behavior. The EA consists of a thorough analysis of the environmental, social, economic, and cultural resource considerations for each alternative.

The FONSI documents the selection of Alternative A. This alternative was selected over the other alternatives because it utilizes the best available science in a consistent manner to manage human-panther interactions. Under this alternative, the Response Team's responsibility is to review information related to human-panther interactions, classify these situations based on the documented behavior of the panther, provide an action plan to the responsible agencies, and take approved and appropriate actions. The plan provides the responding officials with the flexibility to address emergency situations swiftly. Also, public outreach and education are an important element of this proposal, recognizing the importance of teaching people how to safely live and recreate in panther habitat. There are no conflicts with local, State, regional, or Federal plans or policies.

Authority: We provide this notice under NEPA regulations at 40 CFR 1506.6.

Dated: October 6, 2008.

Cynthia K. Dohner,*Deputy Regional Director, Southeast Region.*

[FR Doc. E8-24256 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-55-P**DEPARTMENT OF THE INTERIOR****Fish and Wildlife Service****[FWS-R9-FHC-2008-N0219;13410-1124-0000 L5]****Marine Mammal Protection Act; Stock Assessment Report****AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Notice of availability of final revised marine mammal stock assessment report for the northern sea otter stock in Washington State; response to comments.**SUMMARY:** In accordance with the Marine Mammal Protection Act (MMPA), the Fish and Wildlife Service (Service) has incorporated public comments into a revision of the marine mammal stock assessment report for the northern sea otter (*Enhydra lutris kenyoni*) stock in Washington State. The 2008 final stock assessment report is now complete and available to the public.**ADDRESSES:** Send requests for printed copies of the final stock assessment report to: Manager, U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, 510 Desmond Drive SE, Suite 102, Lacey, WA 98503; (360) 753-9440. Copies of the final revised stock assessment report are also available on the Internet in Adobe Acrobat format at <http://www.fws.gov/westwafwo>.**SUPPLEMENTARY INFORMATION:** One of the goals of the MMPA (16 U.S.C. 1361-1407) is to ensure that stocks of marine mammals occurring in waters under the jurisdiction of the United States do not experience a level of human-caused mortality and serious injury that is likely to cause the stock to be reduced below its optimum sustainable population level (OSP). OSP is defined as "the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element."

To help accomplish the goal of maintaining marine mammal stocks at their OSPs, section 117 of the MMPA requires the Service and the National Marine Fisheries Service (NMFS) to

prepare stock assessment reports for each marine mammal stock that occurs in waters under the jurisdiction of the United States. These stock assessments are to be based on the best scientific information available and are, therefore, prepared in consultation with established regional scientific review groups. Each stock assessment must include: (1) A description of the stock and its geographic range; (2) minimum population estimate, maximum net productivity rate, and current population trend; (3) estimate of human-caused mortality and serious injury; (4) commercial fishery interactions; (5) status of the stock; and (6) potential biological removal level (PBR). The PBR is defined as “* * * the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its OSP.” The PBR is the product of the minimum population estimate of the stock (N_{min}); one-half the maximum theoretical or estimated net productivity rate of the stock at a small population size (R_{max}); and a recovery factor (F_r) of between 0.1 and 1.0, which is intended

to compensate for uncertainty and unknown estimation errors.

Section 117 of the MMPA also requires the Service and the NMFS to review and revise the stock assessment reports: (A) At least annually for stocks that are specified as strategic stocks; (B) at least annually for stocks for which significant new information is available; and (C) at least once every 3 years for all other stocks.

A strategic stock is defined in the MMPA as a marine mammal stock: (A) For which the level of direct human-caused mortality exceeds the PBR; (B) which, based on the best available scientific information, is declining and is likely to be listed as a threatened species under the Endangered Species Act of 1973 (ESA) within the foreseeable future; or (C) which is listed as a threatened or endangered species under the ESA, or is designated as depleted under the MMPA.

A draft revised stock assessment report for the northern sea otter stock in Washington State was made available for a 90-day public review and comment period on April 17, 2008 (73 FR 20931). Prior to releasing it for public review and comment, the Service subjected the

draft report to internal technical review and to scientific review by the Pacific Regional Scientific Review Group established under the MMPA. Following the close of the comment period, the Service revised the stock assessment and prepared the final 2008 stock assessment report.

We revised the final stock assessment report based on public comments received (see below). The status of the stock remains unchanged from the draft revised SAR that was provided for public comment; however, the PBR level was amended to reflect the results of the 2007 survey conducted by the Washington Department of Fish and Wildlife. We also provided further clarification in the discussion of fisheries information as it relates to reports of incidental take. Most of the public comments received were addressed by adding new text for clarity.

A summary of the final revised stock assessment report is presented in Table 1. The table lists the stock’s N_{min} , R_{max} , F_r , PBR, annual estimated human-caused mortality and serious injury, and status.

TABLE 1—SUMMARY OF FINAL REVISED STOCK ASSESSMENT REPORT FOR THE NORTHERN SEA OTTER STOCK IN WASHINGTON STATE

Stock	N_{min}	R_{max}	F_r	PBR	Annual estimated average human-caused mortality	Stock status
Northern sea otters (Washington State)	1,125	0.20	0.1	11	Unknown	Non-Strategic

Comments and Responses

The Service received comments from 2 entities on the draft stock assessment report. The issues raised in those comments and our responses are provided below.

Comment 1: The Service should clarify that the next revision on this assessment will be prepared within 3 years or sooner, if the Washington stock expands its range into Oregon or British Columbia, or undergoes any significant change in the status of the stock.

Response: The Service will continue to review available information on an annual basis and revise the stock assessment report at least once every 3 years for the northern sea otter in Washington State, as specified under section 117 of the MMPA. Section 117(c) directs the Service to review a stock assessment if significant new information indicates that the status of the stock has changed, which could occur prior to the end of the next 3 years. If the Service obtains new information that indicates this stock has established a range significantly beyond

the current range, or has undergone some other significant change, the Service will review the stock assessment report and revise as appropriate at that time.

Comment 2: The N_{min} , PBR, and Figure 2 should be amended to reflect the results of the 2007 survey conducted by the Washington Department of Fish and Wildlife and appropriate references to the unpublished reports, both 2006 and 2007, should be provided.

Response: The Service agrees with this comment and has updated the stock assessment report to reflect the 2007 survey data. The 2007 survey data identifies an N_{min} of 1,125 and, therefore, the re-calculated PBR is 11 animals. The citations have also been updated to indicate that information on the 2006 and 2007 unpublished survey data may be obtained by contacting the Washington Department of Fish and Wildlife.

Comment 3: In the discussion under Fisheries Information, clarify the location of Fishery Areas 4 and 4A and when this fishery was last active. In

reference to Observer Coverage in these fisheries, listed in Table 1, provide further clarification as to what is meant by “1–11 net days observed.”

Response: The location of Fishery Areas 4 and 4A has been clarified. The information supplied to us by the Makah Tribe and the NMFS regarding the Makah Northern Washington Marine Set-gillnet Fishery was not broken out by Fishery Area; therefore, we can not provide further fishing effort beyond the activity level already included in Table 1 in the stock assessment report. The observer coverage information provided in Table 1 in the stock assessment report is in the format provided by the sources. Further clarification is not available to us for inclusion in the stock assessment report.

Comment 4: Clarify whether the NMFS, who collects data through a self-reporting system on the incidental take of marine mammals in fisheries, has received reports of sea otters taken in treaty and non-treaty fisheries in Washington State or has simply not

provided the reports to the Service. Specify the corresponding time frame.

Response: The Service has updated the stock assessment report to reflect the requested changes. However, the information provided by the NMFS did not include a time frame; therefore, a time frame has not been included in the updated stock assessment report.

Comment 5: Given the apparent lack of voluntary reports of sea otter takes and the unreliability of voluntary reporting schemes in general, remove the word "more" from the sentence on page 5 that states "* * * the information provided by the NMFS is not sufficient to provide a more accurate estimate of annual mortality * * *." Further, a statement should be made that a useful estimate of fishing mortality will require instituting observer coverage to obtain data on fishery efforts.

Response: We have revised the final stock assessment report to reflect this comment. The fishery observer programs are conducted by the NMFS of the Department of Commerce, and, therefore, institution of observer coverage in fisheries must be directed to them. We have forwarded this suggestion to them (see response to comment 6).

Comment 6: The stock assessment report concludes that available information is not adequate to make a reliable assessment of incidental take levels. Therefore, the Service should consult with NMFS, Tribal authorities, and other relevant groups to arrange for the placement of observers aboard trap and gillnet fishing vessels that may incidentally take sea otters.

Response: The fishery observer programs are under the administration of the NMFS in accordance with section 118 of the MMPA. With the exception of the Puget Sound Region salmon drift gillnet, all commercial fisheries in the State of Washington that have the potential to take sea otters are classified as Category III in NMFS' List of Fisheries. Category III fisheries are not required to accommodate observers. Further, under this program, fishery interactions are self-reporting or, in some cases, identified as excluded, *e.g.*, treaty Tribal fishing. It is the position of the Service that the incidental take of sea otters by treaty Tribal fishing activities must be authorized under the MMPA. Nonetheless, obtaining incidental take information is a challenge. However, the Service will continue to work with the NMFS, Tribal authorities, and others to the extent practicable under these conditions to obtain better data.

Comment 7: Illegal taking of sea otters is being perpetrated by "fish profiteers" and the Service is not taking appropriate action.

Response: The stock assessment report presents all of the human-caused mortality of sea otters that has been made known to the Service.

Reference Not Cited in the Notice of Availability of Draft Revised SAR:

Jameson, R.J. and S. Jeffries. 2008. Results of the 2007 Survey of the Reintroduced Sea Otter Population in Washington State. Unpublished Report. 7pp. Copies may be obtained from the Washington Department of Fish and Wildlife.

Authority: The authority for this action is the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361-1407).

Dated: October 2, 2008.

Kenneth Stansell,

Acting Director, Fish and Wildlife Service.

[FR Doc. E8-24195 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-R9-FHC-2008-N0265; 94240-1341-0000-N3-N5]

Aquatic Nuisance Species Task Force Meeting

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of meeting.

SUMMARY: This notice announces a meeting of the Aquatic Nuisance Species (ANS) Task Force. The meeting is open to the public. The meeting topics are identified in the **SUPPLEMENTARY INFORMATION** section.

DATES: The ANS Task Force will meet from 8 a.m. to 5 p.m. on Tuesday, October 28, and Wednesday, October 29, 2008.

ADDRESSES: The ANS Task Force meeting will take place at the U.S. Fish and Wildlife Service, Room 200, 4401 North Fairfax Drive, Arlington, VA 22203; (703) 358-1843. You may inspect minutes of the meeting at the office of the Chief, Division of Fish and Wildlife Management and Habitat Restoration, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Arlington, VA 22203, during regular business hours, Monday through Friday. You may also view the minutes on the ANS Task Force Web site at: <http://anstaskforce.gov/meetings.php>.

FOR FURTHER INFORMATION CONTACT: Joe Starinchak, Branch of Invasive Species,

at (703) 358-2018, or by e-mail at Joe_Starinchak@fws.gov.

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C. App.), this notice announces meetings of the ANS Task Force. The ANS Task Force was established by the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990.

Topics the ANS Task Force plans to cover during the meeting include: Regional Panel issues and recommendations, Committee recommendations, and consideration for approval of state ANS management plans. The agenda and other related meeting information are on the ANS Task Force Web site at: <http://anstaskforce.gov/meetings.php>.

Dated: September 22, 2008.

Gary Frazer,

Co-Chair, Aquatic Nuisance Species Task Force, Assistant Director—Fisheries & Habitat Conservation.

[FR Doc. E8-24228 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-55-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[F-14876-M, F-14876-N; AK-964-1410-KC-P]

Alaska Native Claims Selection

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of decision approving lands for conveyance.

SUMMARY: As required by 43 CFR 2650.7(d), notice is hereby given that an appealable decision approving lands for conveyance pursuant to the Alaska Native Claims Settlement Act will be issued to NANA Regional Corporation, Inc., Successor in Interest to Kivalina Sinuakmeut Corporation. The lands are in the vicinity of Kivalina, Alaska, and are located in:

Kateel River Meridian, Alaska

T. 29 N., R. 24 W.,

Secs. 3 to 10, inclusive;

Secs. 13 to 23, inclusive;

Secs. 28 to 33, inclusive.

Containing approximately 14,663 acres.

The subsurface estate in these lands will be conveyed to NANA Regional Corporation, Inc. when the surface estate is conveyed to NANA Regional Corporation, Inc., Successor in Interest to Kivalina Sinuakmeut Corporation. Notice of the decision will also be published four times in the Arctic Sounder.

DATES: The time limits for filing an appeal are:

1. Any party claiming a property interest which is adversely affected by the decision shall have until November 13, 2008 to file an appeal.

2. Parties receiving service of the decision by certified mail shall have 30 days from the date of receipt to file an appeal.

Parties who do not file an appeal in accordance with the requirements of 43 CFR Part 4, Subpart E, shall be deemed to have waived their rights.

ADDRESSES: A copy of the decision may be obtained from: Bureau of Land Management, Alaska State Office, 222 West Seventh Avenue, #13, Anchorage, Alaska 99513-7504.

FOR FURTHER INFORMATION CONTACT: The Bureau of Land Management by phone at 907-271-5960, or by e-mail at ak.blm.conveyance@ak.blm.gov. Persons who use a telecommunication device (TTD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8330, 24 hours a day, seven days a week, to contact the Bureau of Land Management.

Michael Bilancione,

Land Transfer Resolution Specialist, Land Transfer Adjudication I.

[FR Doc. E8-24250 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-JA-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLOR9360000.L51040000.FI0000-09; HAG-09-0007; WAOR58372 and WAOR58373]

Notice of Proposed Reinstatement of Terminated Oil and Gas Leases WAOR58372 and WAOR58373; Washington

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: Under the provisions of 30 U.S.C. 188(d) and (e), and 43 CFR 3108.2-3(a) and (b)(1), the Bureau of Land Management (BLM) received a petition for reinstatement from Delta Petroleum Corporation for competitive oil and gas leases WAOR58372 and WAOR58373, for lands in Franklin County, Washington. The petition was filed on time and was accompanied by all the rentals due since the date the leases terminated under the law.

SUPPLEMENTARY INFORMATION: The lessee, Delta Petroleum Corporation, has agreed to the amended lease terms for rentals and royalties at rates of \$10.00 per acre or fraction thereof, per year and

16-2/3 percent, respectively. The lessee has paid the required \$500 administrative fee and \$163 to reimburse the Bureau of Land Management for the cost of this **Federal Register** notice.

The lessee has met all the requirements for reinstatement of the leases as set out in Section 31(d) and (e) of the Mineral Leasing Act of 1920 (30 U.S.C. 188). Therefore, the Bureau of Land Management is proposing to reinstate leases WAOR58372 and WAOR58373, effective April 1, 2008, subject to the original terms and conditions of the leases and the increased rental and royalty rates cited above. No other valid lease has been issued affecting the lands.

FOR FURTHER INFORMATION CONTACT: Michael Reed, Land Law Examiner, Minerals Section, BLM Oregon/ Washington State Office, PO Box 2965, Portland, Oregon 97208, (503) 808-6282, Mike_Reed@or.blm.gov.

Dated: October 7, 2008.

Christopher B. DeWitt,
Chief, Minerals Section.

[FR Doc. E8-24259 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-33-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLOR9360000.L51040000.FI0000-09; HAG-09-0005; WAOR58397, WAOR58398, WAOR58399, WAOR58400]

Notice of Proposed Reinstatement of Terminated Oil and Gas Leases WAOR58397, WAOR58398, WAOR58399, and WAOR58400; Washington

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: Under the provisions of 30 U.S.C. 188(d) and (e), and 43 CFR 3108.2-3(a) and (b)(1), the Bureau of Land Management (BLM) received a petition for reinstatement from Delta Petroleum Corporation for noncompetitive oil and gas leases WAOR58397, WAOR58398, WAOR58399, and WAOR58400, for lands in Franklin County, Washington. The petition was filed on time and was accompanied by all the rentals due since the date the leases terminated under the law.

SUPPLEMENTARY INFORMATION: The lessee, Delta Petroleum Corporation, has agreed to the amended lease terms for rentals and royalties at rates of \$5.00 per acre or fraction thereof, per year and 16-

2/3 percent, respectively. The lessee has paid the required \$500 administrative fee and \$163 to reimburse the Bureau of Land Management for the cost of this **Federal Register** notice.

The lessee has met all the requirements for reinstatement of the lease as set out in Section 31(d) and (e) of the Mineral Leasing Act of 1920 (30 U.S.C. 188). Therefore, the Bureau of Land Management is proposing to reinstate leases WAOR58397, WAOR58398, WAOR58399, and WAOR58400, effective April 1, 2008, subject to the original terms and conditions of the leases and the increased rental and royalty rates cited above. No other valid lease has been issued affecting the lands.

FOR FURTHER INFORMATION CONTACT: Michael Reed, Land Law Examiner, Minerals Section, BLM Oregon/ Washington State Office, PO Box 2965, Portland, Oregon 97208, (503) 808-6282, Mike_Reed@or.blm.gov.

Dated: October 7, 2008.

Christopher B. DeWitt,
Chief, Minerals Section.

[FR Doc. E8-24255 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-33-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLOR9360000.L51040000.FI0000-09; HAG-09-0006; WAOR61140 and WAOR61142]

Notice of Proposed Reinstatement of Terminated Oil and Gas Leases WAOR61140 and WAOR61142; Washington

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: Under the provisions of 30 U.S.C. 188(d) and (e), and 43 CFR 3108.2-3(a) and (b)(1), the Bureau of Land Management (BLM) received a petition for reinstatement from Delta Petroleum Corporation for competitive oil and gas leases WAOR61140 and WAOR61142, for lands in Benton County, Washington. The petition was filed on time and was accompanied by all the rentals due since the date the leases terminated under the law.

SUPPLEMENTARY INFORMATION: The lessee, Delta Petroleum Corporation, has agreed to the amended lease terms for rentals and royalties at rates of \$10.00 per acre or fraction thereof, per year and 16-2/3 percent, respectively. The lessee has paid the required \$500 administrative fee and \$163 to reimburse the Bureau of Land

Management for the cost of this **Federal Register** notice.

The lessee has met all the requirements for reinstatement of the leases as set out in Section 31(d) and (e) of the Mineral Leasing Act of 1920 (30 U.S.C. 188). Therefore, the Bureau of Land Management is proposing to reinstate leases WAOR61140 and WAOR61142, effective April 1, 2008, subject to the original terms and conditions of the leases and the increased rental and royalty rates cited above. No other valid lease has been issued affecting the lands.

FOR FURTHER INFORMATION CONTACT: Michael Reed, Land Law Examiner, Minerals Section, BLM Oregon/ Washington State Office, PO Box 2965, Portland, Oregon 97208, (503) 808-6282, *Mike_Reed@or.blm.gov*.

Date: October 7, 2008.

Christopher B. DeWitt,

Chief, Minerals Section.

[FR Doc. E8-24258 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-33-P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[NM-210-1430-ES; NMNM 118070]

Correction to Notice of Realty Action—Recreation and Public Purposes (R&PP) Act Classification, New Mexico

AGENCY: Bureau of Land Management, Interior.

ACTION: Correction.

SUMMARY: In **Federal Register** [73 FR 50342] on Tuesday, August 26, 2008, make the following correction. Under the **SUPPLEMENTARY INFORMATION** heading, the legal description should read:

New Mexico Principal Meridian

T. 29 N., R. 12 W.,
Sec. 18, SW of lot 9.

Containing 10 acres, more or less.

FOR FURTHER INFORMATION CONTACT: Mary Jo Albin, Realty Specialist, at the Bureau of Land Management, Farmington Field Office, at (505) 599-6332.

Joel E. Farrell,

Assistant Field Manager for Resources, Farmington.

[FR Doc. E8-24253 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-VB-P

DEPARTMENT OF THE INTERIOR

National Park Service

National Register of Historic Places; Notification of Pending Nominations and Related Actions

Nominations for the following properties being considered for listing or related actions in the National Register were received by the National Park Service before September 27, 2008.

Pursuant to section 60.13 of 36 CFR Part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded by United States Postal Service to the National Register of Historic Places, National Park Service, 1849 C St., NW., 2280, Washington, DC 20240; by all other carriers, National Register of Historic Places, National Park Service, 1201 Eye St., NW., 8th floor, Washington, DC 20005; or by fax, 202-371-6447. Written or faxed comments should be submitted by October 29, 2008.

J. Paul Loether,

Chief, National Register of Historic Places/ National Historic Landmarks Program.

COLORADO

Jefferson County

North Fork Historic District (Boundary Increase), Six parcels of land along Co. Rds. 96 and 126 between South Platte and Pine Grove, Pine Grove, 08001028.

DISTRICT OF COLUMBIA

District of Columbia

Petworth Gardens (Apartment Buildings in Washington, DC, MPS), 124, 126, 128, and 130 Webster St., NW., Washington, DC, 08001029.

IOWA

Dubuque County

Dubuque Millworking Historic District (Dubuque, Iowa MPS), White, Jackson, Elm between E. 6th and E. 11th Sts., Dubuque, 08001030.

NEW HAMPSHIRE

Merrimack County

Old North Cemetery, North State St., Concord, 08001031.

NEW YORK

Delaware County

West Delhi Presbyterian Church, Manse, and Cemetery, 18 and 45 Sutherland Rd., West Delhi, 08001032.

Kings County

New York Congregational Home for the Aged, 123 Linden Blvd., Brooklyn, 08001033.

New York County

Garment Center Historic District, Roughly bounded by Sixth Ave. on the E., Ninth

Ave. on the W., W. 35th St. on the S., and W. 41st St. on the N., New York, 08001034.

Yates County

Sampson Theatre, 130-136 E. Elm St., Penn Yan, 08001035.

WISCONSIN

Shawano County

Tigerton Village Hall and Engine House, 215 Cedar St., Tigerton, 08001036.

[FR Doc. E8-24230 Filed 10-10-08; 8:45 am]

BILLING CODE 4310-70-P

DEPARTMENT OF JUSTICE

Notice of Lodging Proposed Consent Decree

In accordance with Departmental Policy, 28 CFR 50.7, notice is hereby given that a proposed Consent Decree in *United States of America v. George H. Johnson, et al.*, No. 2:05-cv-3579-PHX (D. Ariz.), was lodged with the United States District Court for the District of Arizona, Phoenix Division, on October 7, 2008.

The proposed Consent Decree concerns an amended complaint filed on December 28, 2006 against George H. Johnson, Johnson International, Inc., General Hunt Properties, Inc., and 3-F Contracting, Inc. for alleged violations of Section 301(a) of the Clean Water Act ("CWA"), 33 U.S.C. 1311(a). The proposed Consent Decree resolves all allegations against the defendants for discharging and/or causing to be discharged dredged or fill material into waters of the United States, namely, the Santa Cruz River and its tributaries, including the Los Robles Wash, at various sites commonly known as the King Ranch and La Osa Ranch located in Pinal County, Arizona, without a permit issued by the United States Army Corps of Engineers.

The Department of Justice will accept written comments relating to this proposed Consent Decree for thirty (30) days from the date of publication of this Notice. Please address comments to Rochelle L. Russell, Trial Attorney, Environmental Defense Section, P.O. Box 23986, Washington, DC 20026, and refer to *United States v. Johnson*, DJ # 90-5-1-1-17469.

The proposed Consent Decree may be examined at the Clerk's Office, United States District Court for the District of Arizona, Phoenix Division. In addition, the proposed Consent Decree may be

viewed at http://www.usdoj.gov/enrd/Consent_Decrees.html.

Stephen L. Samuels,

Assistant Section Chief, Environmental Defense Section, Environment & Natural Resources Division.

[FR Doc. E8-24234 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-CW-P

DEPARTMENT OF JUSTICE

Notice of Lodging of Three Consent Decrees Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act

Notice is hereby given that on October 7, 2008, three proposed consent decrees in *United States v. Belle Tire Distr., Inc., et al.*, No. 06cv0816, were lodged with the United States District Court for the Western District of Michigan.

In this cost recovery action brought pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9607, the United States sought recovery of unreimbursed past response costs and prejudgment interest incurred by the United States Environmental Protection Agency for a removal action at the Carl's Tire Retreading Site near Grawn in Grand Traverse County, Michigan. Under the three proposed consent decrees, three defendants will pay a total of \$28,500 to the Hazardous Substance Superfund, an amount determined based upon an analysis of their ability to pay a settlement or judgment.

The Department of Justice will accept comments relating to the three proposed consent decrees for a period of thirty (30) days from the date of publication of this notice. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and mailed either electronically to pubcomments.enrd@usdoj.gov or in hard copy to P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044-7611. Comments should refer to *United States v. Belle Tire Distr., Inc., et al.*, Case No. 06cv0816 (W.D. Mich.) and D.J. Reference No. 90-11-3-09026.

The three proposed consent decrees may be examined at: (1) The Office of the United States Attorney for the Western District of Michigan, 330 Iona Avenue, Suite 501, Grand Rapids, Michigan 49503, (616) 456-2404; and (2) the United States Environmental Protection Agency (Region 5), 77 West Jackson Boulevard, Chicago, Illinois 60604-3590 (contact Steven P. Kaiser (312-353-3804)). During the comment

period, the proposed consent decrees may also be examined on the following Department of Justice Web site: http://www.usdoj.gov/enrd/Consent_Decrees.html. Copies of the proposed consent decrees may also be obtained by mail from the Department of Justice Consent Decree Library, P.O. Box 7611, Washington, DC 20044-7611 or by faxing or e-mailing a request to Tonia Fleetwood (tonia.fleetwood@usdoj.gov), fax no. (202) 514-0097, phone confirmation number (202) 514-1547. In requesting a copy from the Consent Decree Library, please refer to the referenced case and D.J. Reference No. 90-11-3-09026, and enclose a check in the amount of \$14.25 for the three consent decrees (57 pages at 25 cents per page reproduction costs), made payable to the U.S. Treasury.

William D. Brighton,

Assistant Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. E8-24240 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-15-P

DEPARTMENT OF JUSTICE

Bureau of Alcohol, Tobacco, Firearms and Explosives

[OMB Number 1140-0060]

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 30-Day Notice of Information Collection Under Review: Firearms Disabilities for Nonimmigrant Aliens.

The Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 73, Number 155, page 46645 on August 11, 2008, allowing for a 60-day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until November 13, 2008. This process is conducted in accordance with 5 CFR 1320.10.

Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to The Office of

Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk Officer, Washington, DC 20503. Additionally, comments may be submitted to OMB via facsimile to (202) 395-5806.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* Extension of a currently approved collection.

(2) *Title of the Form/Collection:* Firearms Disabilities for Nonimmigrant Aliens.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection: Form Number:* None. Bureau of Alcohol, Tobacco, Firearms and Explosives.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* Business or other for-profit. *Other:* None. *Abstract:* The nonimmigrant alien information will be used to determine if a nonimmigrant alien is eligible to purchase, obtain, possess, or import a firearm. Nonimmigrant aliens also must maintain the documents while in possession of firearms or ammunition in the United States for verification purposes.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* There will be an estimated 2,100 respondents, who will take an

estimated 6 minutes to report the information.

(6) *An estimate of the total burden (in hours) associated with the collection:*

There are an estimated 1,210 total burden hours associated with this collection.

If additional information is required contact: Lynn Bryant, Department Clearance Officer, United States Department of Justice, Policy and Planning Staff, Justice Management Division, Suite 1600, Patrick Henry Building, 601 D Street, NW., Washington, DC 20530.

Dated: October 8, 2008.

Lynn Bryant,

Department Clearance Officer, PRA, United States Department of Justice.

[FR Doc. E8-24281 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-FY-P

DEPARTMENT OF JUSTICE

Bureau of Alcohol, Tobacco, Firearms and Explosives

[OMB Number 1140-0031]

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 30-Day Notice of Information Collection Under Review: Records of Acquisition and Disposition, Registered Importers of Arms, Ammunition and Implements of War on the U.S. Munitions Imports List.

The Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 73, Number 155, page 46645 on August 11, 2008, allowing for a 60-day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until November 13, 2008. This process is conducted in accordance with 5 CFR 1320.10.

Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to The Office of Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk

Officer, Washington, DC 20503.

Additionally, comments may be submitted to OMB via facsimile to (202) 395-5806.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* Extension of a currently approved collection.

(2) *Title of the Form/Collection:* Records of Acquisition and Disposition, Registered Importers of Arms, Ammunition and Implements of War on the U.S. Munitions Import List.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Form Number: ATF REC 7570/1. Bureau of Alcohol, Tobacco, Firearms and Explosives.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: Business or other for-profit. Other: None. Abstract: The records are of imported items that are on the United States Munitions Import List. The importers must be registered with ATF and must file an intent to import specific items as well as certify to the Bureau that the items were in fact received. The records are maintained at the registrant's business premises where they are available for inspection by ATF officers during compliance inspections or criminal investigations.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* There will be an estimated 50

respondents, who will take 5 hours to maintain the records.

(6) *An estimate of the total burden (in hours) associated with the collection:*

There are an estimated 250 total burden hours associated with this collection.

If additional information is required contact: Lynn Bryant, Department Clearance Officer, United States Department of Justice, Policy and Planning Staff, Justice Management Division, Suite 1600, Patrick Henry Building, 601 D Street, NW., Washington, DC 20530.

October 8, 2008.

Lynn Bryant,

Department Clearance Officer, PRA, United States Department of Justice.

[FR Doc. E8-24282 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-FY-P

DEPARTMENT OF JUSTICE

Bureau of Alcohol, Tobacco, Firearms and Explosives

[OMB Number 1140-0024]

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 30-Day Notice of Information Collection Under Review: Report of Firearms Transactions

The Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 73, Number 155 page 46644 on August 11, 2008, allowing for a 60-day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until November 13, 2008. This process is conducted in accordance with 5 CFR 1320.10.

Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to The Office of Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk Officer, Washington, DC 20503. Additionally, comments may be submitted to OMB via facsimile to (202) 395-5806. Written comments and

suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* Extension of a currently approved collection.

(2) *Title of the Form/Collection:* Report of Firearms Transactions.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection: Form Number:* ATF F 5300.5. Bureau of Alcohol, Tobacco, Firearms and Explosives.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* Business or other for-profit. *Other:* None. *Abstract:* The information collection documents transactions of firearms for law enforcement purposes. ATF uses the information to determine that the transaction is in accordance with laws and regulations, and establishes the person(s) involved in the transactions.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* There will be an estimated 250 respondents, who will complete the form within approximately 1 hour.

(6) *An estimate of the total burden (in hours) associated with the collection:* There are an estimated 250 total burden hours associated with this collection.

If additional information is required contact: Lynn Bryant, Department Clearance Officer, United States Department of Justice, Policy and Planning Staff, Justice Management

Division, Suite 1600, Patrick Henry Building, 601 D Street, NW., Washington, DC 20530.

Dated: October 8, 2008,

Lynn Bryant,

Department Clearance Officer, PRA, United States Department of Justice.

[FR Doc. E8-24283 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-FY-P

DEPARTMENT OF JUSTICE

Bureau of Alcohol, Tobacco, Firearms and Explosives

[OMB Number 1140-0067]

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 30-Day Notice of Information Collection Under Review: Licensed Firearms Manufacturers Records of Production, Disposition, and Supporting Data.

The Department of Justice (DOJ), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 73, Number 155, page 46646-46647 on August 11, 2008, allowing for a 60-day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until November 13, 2008. This process is conducted in accordance with 5 CFR 1320.10.

Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to The Office of Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk Officer, Washington, DC 20503. Additionally, comments may be submitted to OMB via facsimile to (202) 395-5806.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

- Evaluate whether the proposed collection of information is necessary

for the proper performance of the functions of the agency, including whether the information will have practical utility;

- Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of information collection:* Extension of a currently approved collection.

(2) *Title of the form/collection:* Licensed Firearms Manufacturers Records of Production, Disposition, and Supporting Data.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection: Form Number:* None. Bureau of Alcohol, Tobacco, Firearms and Explosives.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* Business or other for-profit. *Other:* None. *Abstract:* Firearms manufacturers records are permanent records of all firearms manufactured and records of their disposition. These records are vital to support ATF's mission to inquire into the disposition of any firearm in the course of a criminal investigation.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* There will be an estimated 1,694 respondents, who will take 3 minutes to maintain the records.

(6) *An estimate of the total burden (in hours) associated with the collection:* There are an estimated 76,611 total burden hours associated with this collection.

If additional information is required contact: Lynn Bryant, Department Clearance Officer, United States Department of Justice, Policy and Planning Staff, Justice Management Division, Suite 1600, Patrick Henry Building, 601 D Street NW., Washington, DC 20530.

Dated: October 8, 2008.

Lynn Bryant,

Department Clearance Officer, PRA, United States Department of Justice.

[FR Doc. E8-24284 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-FY-P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

Importer of Controlled Substances; Notice of Application

Pursuant to 21 U.S.C. 958(i), the Attorney General shall, prior to issuing a registration under this section to a bulk manufacturer of a controlled substance in schedule I or II, and prior to issuing a regulation under 21 U.S.C. 952(a)(2) authorizing the importation of such a substance, provide manufacturers holding registrations for the bulk manufacture of the substance an opportunity for a hearing.

Therefore, in accordance with Title 21 Code of Federal Regulations (CFR), 1301.34(a), this is notice that on August 26, 2008, Hospira Inc., 1776 North Centennial Drive, McPherson, Kansas 67460-1247, made application to the Drug Enforcement Administration (DEA) to be registered as an importer of Remifentanyl (9739), a basic class of controlled substance listed in schedule II.

The company plans to import Remifentanyl for use in dosage form manufacturing.

Any bulk manufacturer who is presently, or is applying to be, registered with DEA to manufacture such basic classes of controlled substances may file comments or objections to the issuance of the proposed registration and may, at the same time, file a written request for a hearing on such application pursuant to 21 CFR 1301.43 and in such form as prescribed by 21 CFR 1316.47.

Any such comments or objections should be addressed, in quintuplicate, to the Drug Enforcement Administration, Office of Diversion Control, Federal Register Representative (ODL), 8701 Morrisette Drive, Springfield, Virginia 22152; and must be filed no later than November 13, 2008.

This procedure is to be conducted simultaneously with, and independent of, the procedures described in 21 CFR 1301.34(b), (c), (d), (e), and (f). As noted in a previous notice published in the **Federal Register** on September 23, 1975, (40 FR 43745), all applicants for registration to import a basic class of any controlled substance in schedule I or II are, and will continue to be,

required to demonstrate to the Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration, that the requirements for such registration pursuant to 21 USC 958(a); 21 U.S.C. 823(a); and 21 CFR 1301.34(b), (c), (d), (e), and (f) are satisfied.

Dated: October 6, 2008.

Joseph T. Rannazzisi,

Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration.

[FR Doc. E8-24308 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-09-P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

Manufacturer of Controlled Substances; Notice of Application

Pursuant to § 1301.33(a) of Title 21 of the Code of Federal Regulations (CFR), this is notice that on May 13, 2008, Halo Pharmaceutical Inc., 30 North Jefferson Road, Whippany, New Jersey 07981, made application to the Drug Enforcement Administration (DEA) to be registered as a bulk manufacturer of the basic classes of controlled substances listed in schedules I and II:

Drug	Schedule
Dihydromorphine (9145)	I
Hydromorphone (9150)	II

Dihydromorphine is an intermediate in the manufacture of Hydromorphone and is not for commercial distribution. The company plans to manufacture Hydromorphone HCL for sale to other manufacturers and for the manufacture of other controlled substance dosage units for distribution to its customers.

Any other such applicant, and any person who is presently registered with DEA to manufacture such substances, may file comments or objections to the issuance of the proposed registration pursuant to 21 CFR 1301.33(a).

Any such written comments or objections should be addressed, in quintuplicate, to the Drug Enforcement Administration, Office of Diversion Control, Federal Register Representative (ODL), 8701 Morrisette Drive, Springfield, Virginia 22152; and must be filed no later than December 15, 2008.

Dated: October 7, 2008.

Joseph T. Rannazzisi,

Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration.

[FR Doc. E8-24310 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-09-P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket Nos. 05-13 and 05-45]

Sunny Wholesale, Inc. Revocation of Registration and Denial of Application; Correction

On October 3, 2008, the Drug Enforcement Administration (DEA) published an order in the **Federal Register** (73 FR 57655) that, among other things, revoked the registration of Sunny Wholesale, Inc. In the order taking this action, the DEA Certificate of Registration was incorrectly cited. The correct Certificate of Registration for Sunny Wholesale, Inc., 120 Forest Parkway, Forest Park, Georgia, is 004550SLY.

Therefore, the Certificate of Registration referenced at 73 FR 57668, first column, sixth line down, is corrected to read "004550SLY."

Dated: October 6, 2008.

Michele M. Leonhart,

Deputy Administrator.

[FR Doc. E8-24305 Filed 10-10-08; 8:45 am]

BILLING CODE 4410-09-P

DEPARTMENT OF JUSTICE

Office of Justice Programs

[OMB Number 1121-NEW]

Agency Information Collection Activities: New Information Collection, Comments Requested

ACTION: 30-Day Notice of Information Collection Under Review: NICS Act State Record Estimates Data Collection.

The Department of Justice (DOJ), Office of Justice Programs, Bureau of Justice Statistics (BJS), will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** Volume 73, Number 150, page 45245 on August 4, 2008, allowing for a 60 day comment period.

The purpose of this notice is to allow for an additional 30 days for public comment until November 13, 2008. This process is conducted in accordance with 5 CFR 1320.10.

The proposed information collection is available online at <http://www.ojp.usdoj.gov/bjs/niaa.htm>.

Written comments should be directed to: Gerard F. Ramker, Bureau of Justice Statistics, 810 Seventh St., NW., Washington, DC 20531. Comments are solicited to:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Bureau of Justice Statistics pursuant to the NICS Improvement Amendments Act of 2007, including whether the information will have practical utility;
- Evaluate the accuracy of the agencies' estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection:* New information collection.

(2) *Title of the Form/Collection:* NICS Act State Record Estimates Data Collection.

(3) *Agency form number, if any, and the applicable component of the Department of Justice sponsoring the collection:* Not applicable.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract:* Primary: State and Local Government. This information collection seeks of available state and local records, and other information pursuant to the NICS Improvement Amendments Act of 2007 (Pub. L. 110–180), enacted on January 8, 2008. Submission of this information is a prerequisite for states to be eligible to apply for federal grant funds under programs authorized in the Act, should Congress appropriate funds for this purpose.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* Respondents may include the fifty (50) states, the District of Columbia, and the territories of Guam, American Samoa, U.S. Virgin Islands, Puerto Rico, and the Commonwealth of the Northern Mariana Islands. The time required to complete the information collection form is estimated at two (2) hours. It is estimated that the collaboration,

research and analysis required to develop the estimates and formulate the responses required by the initial information collection could range between 8 and 160 hours depending on the availability of data on which required estimates can be based.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The range of total burden hours associated with this collection is estimated at between 896 and 17,920 hours.

If additional information is required contact: Lynn Bryant, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Patrick Henry Building, Suite 1600, 601 D Street, NW., Washington, DC 20530.

Dated: October 7, 2008.

Lynn Bryant,

Department Clearance Officer, PRA, U.S. Department of Justice.

[FR Doc. E8–24328 Filed 10–10–08; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF LABOR

Employee Benefits Security Administration

Hearing on Proposed Class Exemption for Investment Advice

AGENCY: Employee Benefits Security Administration, U.S. Department of Labor.

ACTION: Notice of hearing.

SUMMARY: Notice is hereby given that the Department of Labor will hold a hearing on the Department's proposed class exemption from certain prohibited transaction restrictions of the Employee Retirement Income Security Act of 1974, as amended (ERISA, or the Act), and from certain taxes imposed by the Internal Revenue Code of 1986, as amended (Code), for the provision of investment advice to participants and beneficiaries of self-directed individual account plans and individual retirement accounts (IRAs).

DATES: The hearing will be held on October 21, 2008, beginning at 8 a.m., EST. Persons interested in presenting testimony and answering questions at the public hearing must submit requests and certain other information (as discussed below), by 3:30 p.m., EST, October 16, 2008.

ADDRESSES: The hearing will be held at the U.S. Department of Labor, Room S–3215 A&B, 200 Constitution Avenue, NW., Washington, DC 20210.

FOR FURTHER INFORMATION CONTACT: Fil Williams, Office of Regulations and Interpretations, Employee Benefits Security Administration, (202) 693–8510. This is not a toll-free number.

SUPPLEMENTARY INFORMATION: On August 22, 2008, notice was published in the **Federal Register** (73 FR 49924) that the Department of Labor (the Department) has under consideration a proposed class exemption to permit the provision of investment advice to participants and beneficiaries of self-directed individual account plans, such as 401(k) plans, and IRAs. The Department proposed the class exemption on its own motion pursuant to section 408(a) of ERISA, and in accordance with the procedures set forth in 29 CFR Part 2570, subpart B (55 FR 32836, August 10, 1990).

Specifically, upon adoption, the proposed exemption would provide relief from the restrictions of section 406(a) and 406(b) of the Act, and from the taxes imposed by section 4975(a) and (b) of the Code, by reason of section 4975(c)(1) of the Code, for the provision of investment advice described in section 3(21)(A)(ii) of ERISA by a fiduciary adviser to a participant or beneficiary in an individual account plan or IRA (and certain similar plans), the acquisition, holding or sale of a security or other property pursuant to the investment advice, and the direct or indirect receipt of fees or other compensation by the fiduciary adviser (or any employee, agent, registered representative or affiliate thereof) in connection with such transactions.

Upon adoption, the class exemption would affect sponsors, fiduciaries, participants and beneficiaries of participant-directed individual account plans and IRAs, as well as providers of investment and investment advice-related services to such plans.

In the notice of proposed exemption, the Department invited interested persons to submit written comments on or before October 6, 2008. To date, the Department has received approximately 39 written comments concerning the proposed class exemption, many of which were from major industry groups. All written comments are available to the public, without charge, online at <http://www.dol.gov/ebsa> and at the Public Disclosure Room N–1513, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

In their written comments, four parties requested that the Department hold a public hearing to more fully examine issues raised under the proposed class exemption, and

expressed an interest in testifying. In view of the importance of this initiative and its potential for significantly affecting the provision of investment advice to participants and beneficiaries in affected plans, and taking into account the concerns of these commenters, the Department has decided to hold a public hearing. The primary purpose of this hearing is to further develop the public record regarding the class exemption and to assist the Department in understanding the issues and other concerns raised by the written comments. Because information contained in previously-submitted written comments is already part of the public record, the Department expects that persons testifying at the hearing will present information not previously addressed in their written comments.

The hearing will be held on October 21, 2008, beginning at 8 a.m. and ending at 5 p.m., EST, in Room S-3215 A&B of the Department of Labor, Francis Perkins Building, at 200 Constitution Avenue, NW., Washington, DC 20210.

Persons interested in presenting testimony and answering questions at this public hearing must submit, by 3:30 p.m., EST, October 16, 2008, the following information: (1) A written request to be heard; and (2) An outline of the topics to be discussed, indicating the time allocated to each topic. To facilitate the receipt and processing of responses, EBSA encourages interested persons to submit their requests and outlines electronically by e-mail to e-ORI@dol.gov. Persons submitting requests and outlines electronically are encouraged not to submit paper copies.

Persons submitting requests and outlines on paper should send or deliver their requests and outlines (preferably at least three copies) to the Office of Regulations and Interpretations, Employee Benefits Security Administration, Attn: Investment Advice Class Exemption Hearing, Room N-5655, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210. All requests and outlines submitted to the Department will be available to the public, without charge, online at <http://www.dol.gov/ebsa> and at the Public Disclosure Room N-1513, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

The Department will prepare an agenda indicating the order of presentation of oral comments and testimony. In the absence of special circumstances, each presenter will be allotted ten (10) minutes in which to complete his or her presentation.

Any individuals with disabilities who may need special accommodations should notify Fil Williams on or before October 16, 2008.

Information about the agenda will be posted on <http://www.dol.gov/ebsa> on or after October 16, 2008, or may be obtained by contacting Fil Williams, Office of Regulations and Interpretations, Employee Benefits Security Administration, U.S. Department of Labor, telephone (202) 693-8510 (this is not a toll-free number).

Those individuals who make oral comments and testimonies at the hearing should be prepared to answer questions regarding their information and/or comments. The hearing will be transcribed.

Notice of Public Hearing

Notice is hereby given that a public hearing will be held on October 21, 2008, concerning the Department's proposed class exemption for the provision of investment advice to participants and beneficiaries of self-directed individual account plans and IRAs. The hearing will be held beginning at 8 a.m. in Room S-3215 A&B of the U.S. Department of Labor, Francis Perkins Building, 200 Constitution Avenue, NW., Washington DC, 20210.

Signed at Washington, DC, this 8th day of October, 2008.

Bradford P. Campbell,

Assistant Secretary, Employee Benefits Security Administration, U.S. Department of Labor.

[FR Doc. E8-24338 Filed 10-10-08; 8:45 am]

BILLING CODE 4510-29-P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Advisory Committee on the Electronic Records Archives

AGENCY: National Archives and Records Administration.

ACTION: Notice of meeting.

SUMMARY: In accordance with the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), the National Archives and Records Administration (NARA) announces a meeting of the Advisory Committee on the Electronic Records Archives (ACERA). The committee serves as a deliberative body to advise the Archivist of the United States, on technical, mission, and service issues related to the Electronic Records Archives (ERA). This includes, but is not limited to, advising and making recommendations

to the Archivist on issues related to the development, implementation and use of the ERA system.

Date of Meeting: November 5-6, 2008.

Time of Meeting: 9 a.m.-4 p.m.

Place of Meeting: 700 Pennsylvania Avenue, NW., Washington, DC 20408-0001.

This meeting will be open to the public. However, due to space limitations and access procedures, the name and telephone number of individuals planning to attend must be submitted to the Electronic Records Archives Program at era.program@nara.gov.

SUPPLEMENTARY INFORMATION:

Agenda

- Opening Remarks.
- Approval of Minutes.
- Committee Updates.
- Activities Reports.
- Adjournment.

FOR FURTHER INFORMATION CONTACT:

Adrienne Thomas, Deputy Archivist; (301) 837-1600.

Dated: October 8, 2008.

Patrice Little Murray,

Alternate Committee Management Officer.

[FR Doc. E8-24341 Filed 10-10-08; 8:45 am]

BILLING CODE 7515-01-P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Records Schedules; Availability and Request for Comments

AGENCY: National Archives and Records Administration (NARA).

ACTION: Notice of availability of proposed records schedules; request for comments.

SUMMARY: The National Archives and Records Administration (NARA) publishes notice at least once monthly of certain Federal agency requests for records disposition authority (records schedules). Once approved by NARA, records schedules provide mandatory instructions on what happens to records when no longer needed for current Government business. They authorize the preservation of records of continuing value in the National Archives of the United States and the destruction, after a specified period, of records lacking administrative, legal, research, or other value. Notice is published for records schedules in which agencies propose to destroy records not previously authorized for disposal or reduce the retention period of records already authorized for disposal. NARA invites public

comments on such records schedules, as required by 44 U.S.C. 3303a(a).

DATES: Requests for copies must be received in writing on or before November 13, 2008. Once the appraisal of the records is completed, NARA will send a copy of the schedule. NARA staff usually prepare appraisal memorandums that contain additional information concerning the records covered by a proposed schedule. These, too, may be requested and will be provided once the appraisal is completed. Requesters will be given 30 days to submit comments.

ADDRESSES: You may request a copy of any records schedule identified in this notice by contacting the Life Cycle Management Division (NWML) using one of the following means:

Mail: NARA (NWML), 8601 Adelphi Road, College Park, MD 20740-6001.

E-mail: request.schedule@nara.gov.

FAX: 301-837-3698.

Requesters must cite the control number, which appears in parentheses after the name of the agency which submitted the schedule, and must provide a mailing address. Those who desire appraisal reports should so indicate in their request.

FOR FURTHER INFORMATION CONTACT:

Laurence Brewer, Director, Life Cycle Management Division (NWML), National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001.
Telephone: 301-837-1539. *E-mail:* records.mgt@nara.gov.

SUPPLEMENTARY INFORMATION: Each year Federal agencies create billions of records on paper, film, magnetic tape, and other media. To control this accumulation, agency records managers prepare schedules proposing retention periods for records and submit these schedules for NARA's approval, using the Standard Form (SF) 115, Request for Records Disposition Authority. These schedules provide for the timely transfer into the National Archives of historically valuable records and authorize the disposal of all other records after the agency no longer needs them to conduct its business. Some schedules are comprehensive and cover all the records of an agency or one of its major subdivisions. Most schedules, however, cover records of only one office or program or a few series of records. Many of these update previously approved schedules, and some include records proposed as permanent.

The schedules listed in this notice are media neutral unless specified otherwise. An item in a schedule is media neutral when the disposition

instructions may be applied to records regardless of the medium in which the records are created and maintained. Items included in schedules submitted to NARA on or after December 17, 2007, are media neutral unless the item is limited to a specific medium. (See 36 CFR 1228.24(b)(3).)

No Federal records are authorized for destruction without the approval of the Archivist of the United States. This approval is granted only after a thorough consideration of their administrative use by the agency of origin, the rights of the Government and of private persons directly affected by the Government's activities, and whether or not they have historical or other value.

Besides identifying the Federal agencies and any subdivisions requesting disposition authority, this public notice lists the organizational unit(s) accumulating the records or indicates agency-wide applicability in the case of schedules that cover records that may be accumulated throughout an agency. This notice provides the control number assigned to each schedule, the total number of schedule items, and the number of temporary items (the records proposed for destruction). It also includes a brief description of the temporary records. The records schedule itself contains a full description of the records at the file unit level as well as their disposition. If NARA staff has prepared an appraisal memorandum for the schedule, it too includes information about the records. Further information about the disposition process is available on request.

Schedules Pending

1. Department of Commerce, National Oceanic and Atmospheric Administration (N1-370-08-3, 2 items, 2 temporary items). Limited access privilege fishing permits and dealer, buyer, processor or receiver permits for persons receiving or processing fish harvested under a limited access system or a fishery management plan.

2. Department of Education, Agency-wide (N1-441-08-16, 4 items, 3 temporary items). Records related to policy decisions and program operational procedures, including background materials, working papers, drafts, unpublished guidance, and duplicates of policy documents. Proposed for permanent retention are major policy decisions and program procedures originated within each Principal Office and Regional Office providing the mandates.

3. Department of Education, Agency-wide (N1-441-08-17, 2 items, 2

temporary items). Records documenting the ongoing management of programs, and routine projects within the Department. Included are such records as correspondence and memoranda, internal and external training materials, staff meeting records such as agendas and attendance lists, background papers, meeting minutes, and project control files showing assignments and progress.

4. Department of Education, Office of General Counsel (N1-441-08-20, 2 items, 1 temporary item). Legislative working papers such as informal comments from OMB and other agencies and internal Department drafts and comments on draft legislative materials. Proposed for permanent retention are formal legislative documents.

5. Department of Education, Agency-wide (N1-441-08-21, 4 items, 3 temporary items). Case files relating to non-landmark litigation cases and attorney working files. Proposed for permanent retention are litigation case files for landmark cases, including agreed final judgments and compromise settlement agreements.

6. Department of Homeland Security, U.S. Citizenship and Immigration Services (N1-566-08-16, 1 item, 1 temporary item). Master file associated with an agency-wide training resource, career development, and training history database management system.

7. Department of Homeland Security, U.S. Citizenship and Immigration Services (N1-566-08-18, 1 item, 1 temporary item). Master file associated with an electronic information system used to record, track, and manage immigration inquiries, investigative referrals, law enforcement requests, and case determinations involving criminal activity, public safety, and national security concerns. Records relating to an individual's A-File will be transferred to the A-File. The A-files are proposed as permanent in a separate schedule.

8. Department of Housing and Urban Development, Assistant Secretary for Housing (N1-207-08-2, 6 items, 4 temporary items). Records of the Office of Evaluation, including policy-related records, reference files, correspondence, and reports. Proposed for permanent retention are major studies and statistical reports.

9. Department of the Interior, Bureau of Reclamation (N1-115-08-10, 1 item, 1 temporary item). Master files of the Bureau of Reclamation Hydrological and Meteorological (HydroMet) Information System (HMIS). The HMIS system is used to collect, distribute, and process hydrological and meteorological data for use in operation of reclamation water projects.

10. Department of the Interior, Bureau of Reclamation (N1-115-08-11, 3 items, 3 temporary items). Master files and outputs from the Central Valley Operations Decision Support System, an electronic information system used to manage water and power operations data in the Central Valley Project in California and power operations in the Mid-Pacific Region.

11. Department of the Interior, Bureau of Reclamation (N1-115-08-12, 1 item, 1 temporary item). Master files of the agency's Water Management Information System, which provides a portfolio of decision-making tools used in the acquisition, processing, and long-term storage of water data.

12. Department of the Interior, U.S. Geological Survey (N1-57-05-2, 26 items, 15 temporary items). Records of the Geography Discipline. Included are facilitative records relating to land remote sensing and geography science. Proposed for permanent retention are such records as significant land remote sensing records, analysis and monitoring program records, committee records and related indexes. The proposed disposition instructions are limited to paper records for some items and to electronic records for other items.

13. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives (N1-436-07-1, 1 item, 1 temporary item). Master file for a correspondence tracking and management system used to assign, prepare and track correspondence received and sent by the Office of the Director. The proposed disposition instructions are limited to electronic records.

14. Department of Justice, Federal Bureau of Investigation (N1-65-07-7, 78 items, 70 temporary items). Administrative records relating to routine housekeeping activities not covered by the General Records Schedules (GRS) or that are required for longer retention periods than authorized by the GRS. Records relate to such matters as procurement, payroll, budget and finance, and mail management. Proposed for permanent retention are records related to high-level planning, organizational structure, and management of the FBI.

15. Department of Justice, Federal Bureau of Investigation (N1-65-08-22, 9 items, 9 temporary items). Human resources records, including files of the supervisory special agent programs, position management files, and special agent insurance programs.

16. Department of Transportation, Federal Railroad Administration (N1-399-07-11, 3 items, 2 temporary items). Program management records of the

Deputy Administrator, Administrator's executive staff, Associate Administrators and other senior agency officials and staff. Proposed for permanent retention are the program records of the Administrator.

17. Department of the Treasury, Internal Revenue Service (N1-58-08-16, 20 items, 20 temporary items). Records relating to occupational safety and environmental matters, including asbestos monitoring, environmental testing, accident investigations, and handling of hazardous materials.

18. National Archives and Records Administration, Office of Records Services—Washington, DC (N1-64-08-11, 2 items, 2 temporary items). Master Location Register database used to identify locations and descriptive information for records stored by the National Archives. Also included are reports, statistics, and operating and technical manuals.

19. National Archives and Records Administration, Office of Information Services (N1-64-08-12, 28 items, 28 temporary items). Information services and technology records relating to policy, planning, system development, infrastructure operations/maintenance, security, data and forms management, and OMB information collection.

20. United States Courts of Appeals (N1-276-08-1, 3 items, 1 temporary item). This schedule pertains to appellate court case files and submissions created after January 2007. Included are electronic copies of records relating to predominantly paper case files where the paper files serve as the recordkeeping copy. Proposed for permanent retention are paper case files and case files maintained in an electronic case file system. The proposed disposition instructions are limited to the specified media.

Dated: October 8, 2008.

Michael J. Kurtz,

Assistant Archivist for Records Services—Washington, DC.

[FR Doc. E8-24343 Filed 10-10-08; 8:45 am]

BILLING CODE 7515-01-P

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

Information Security Oversight Office

Public Interest Declassification Board (PIDB); Notice of Meeting

Pursuant to Section 1102 of the Intelligence Reform and Terrorism Prevention Act of 2004 which extended and modified the Public Interest Declassification Board (PIDB) as established by the Public Interest

Declassification Act of 2000 (Pub. L. 106-567, title VII, December 27, 2000, 114 Stat. 2856), announcement is made for the following committee meeting:

Name of Committee: Public Interest Declassification Board (PIDB).

Date of Meeting: Friday, October 31, 2008.

Time of Meeting: 9:30 a.m. to 11:30 a.m.

Place of Meeting: National Archives and Records Administration, 700 Pennsylvania Avenue, NW., Room 105, Washington, DC 20408.

Purpose: To discuss the issue of identifying and prioritizing the declassification review of "historically significant" information as described in Issue 2 of the Board's report to the President, titled *Improving Declassification*. Copies of the report are located at the following Web site:

<http://www.archives.gov/declassification/pidb/improving-declassification.pdf>.

This meeting will be open to the public. However, due to space limitations and access procedures, the name and telephone number of individuals planning to attend must be submitted to the Information Security Oversight Office (ISOO) no later than Wednesday, October 29, 2008. ISOO will provide additional instructions for gaining access to the location of the meeting.

FOR FURTHER INFORMATION CONTACT: Julie A. Agurkis, PIDB Staff, Information Security Oversight Office, National Archives Building, 700 Pennsylvania Avenue, NW., Washington, DC 20408, telephone number (202) 357-5308.

Dated: October 7, 2008.

William J. Bosanko,

Director, Information Security Oversight Office.

[FR Doc. E8-24313 Filed 10-10-08; 8:45 am]

BILLING CODE 7515-01-P

NATIONAL ENDOWMENT FOR THE ARTS

RIN 3135AA22

Privacy Act of 1974: Republication of Notice of Systems of Records

AGENCY: National Endowment for the Arts.

ACTION: Notice of amendment to systems of records, proposed systems of records, and new routine uses.

SUMMARY: The National Endowment for the Arts (Endowment) is publishing a notice of an amendment to its systems of records, as required by the Privacy Act of 1974, 5 U.S.C. 552a(e)(4).

DATES: The proposed amendment to the Endowment's systems of records will become effective 30 days from the date of this publication in the **Federal Register**.

ADDRESSES: Karen Elias; Acting General Counsel; National Endowment for the Arts; 1100 Pennsylvania Avenue, NW.; Room 518; Washington, DC 20506; telefax at (202) 682-5572 or by electronic mail at eliask@arts.endow.gov.

FOR FURTHER INFORMATION CONTACT: Karen Elias, (202) 682-5418.

SUPPLEMENTARY INFORMATION: The Endowment is today making an amendment to its notice of the existence and character of its systems of records, which was published in the **Federal Register** on June 30, 2008 (73 FR 36908) in accordance with 5 U.S.C. 552a(e)(4), by adding one general routine use.

Statement of General Routine Uses

12. To appropriate agencies, entities, and persons when (1) The Endowment suspects or has confirmed that the security or confidentiality of information in the system of records has been compromised; (2) the Endowment has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the Endowment or another agency or entity) that rely upon the compromised information; and (3) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connection with the Endowment's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

Kathleen Edwards,

Director, Administrative Services, National Endowment for the Arts.

[FR Doc. E8-24324 Filed 10-10-08; 8:45 am]

BILLING CODE 7537-01-P

NATIONAL SCIENCE FOUNDATION

Advisory Committee for Computer and Information Science and Engineering; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92-463, as amended), the National Science Foundation announces the following meeting:

Name: Advisory Committee for Computer and Information Science and Engineering—(1115).

Date and Time: October 17, 2008, 8:30 a.m.–5 p.m. (EDT).

Place: The National Science Foundation, 4201 Wilson Blvd., Room 1235, Arlington, VA 22230.

Type of Meeting: Open.

Contact Person: Maggie Whiteman, Office of the Assistant Director, Directorate for Computer and Information Science and Engineering, National Science Foundation, 4201 Wilson Blvd., Suite 1105, Arlington, VA 22230. *Telephone:* (703) 292-8900.

Minutes: May be obtained from the contact person listed above.

Purpose of Meeting: To discuss strategic priorities in computing. To advise NSF on the impact of its policies, programs and activities on the CISE community. To provide advice to the Assistant Director/CISE on issues related to long-range planning, and to form ad hoc subcommittees to carry out needed studies and tasks.

Reason for Late Notice: Due to administrative complications and scheduling issues. However, there is necessity to proceed with this meeting at this time.

Agenda: Report from the Assistant Director. Discussion of research, education, diversity, workforce issues in IT and long-range funding outlook.

Dated: October 8, 2008.

Susanne Bolton,

Committee Management Officer.

[FR Doc. E8-24243 Filed 10-10-08; 8:45 am]

BILLING CODE 7555-01-P

NATIONAL SCIENCE FOUNDATION

National Science Board Task Force on the NSB 60th Anniversary; Sunshine Act Meetings; Notice

The National Science Board's Task Force on the NSB 60th Anniversary, pursuant to NSF regulations (45 CFR Part 614), the National Science Foundation Act, as amended (42 U.S.C. 1862n-5), and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice in regard to the scheduling of meetings for the transaction of National Science Board business and other matters specified, as follows:

DATE AND TIME: Tuesday, October 28, 2008 from 3 p.m. to 4 p.m.

SUBJECT MATTER: Discussion of ideas for the NSB 60th Anniversary.

STATUS: Open.

PLACE: This meeting will be held by teleconference originating at the National Science Board Office, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230. Room 110 will be available to the public to listen to this teleconference meeting.

Please refer to the National Science Board Web site (<http://www.nsf.gov/nsb>) for information or schedule updates, or contact: Ann Ferrante, National Science Board Office, 4201 Wilson Blvd.,

Arlington, VA 22230. *Telephone:* (703) 292-7000.

Ann Ferrante,

Writer-Editor.

[FR Doc. E8-24304 Filed 10-10-08; 8:45 am]

BILLING CODE 7555-01-P

NATIONAL SCIENCE FOUNDATION

Request for Input (RFI)—National Cyber Leap Year

AGENCY: The National Coordination Office (NCO) for Networking Information Technology Research and Development (NITRD).

ACTION: Request for Input (RFI).

FOR FURTHER INFORMATION, CONTACT:

Tomas Vagoun at Vagoun@nitrd.gov or (703) 292-4873. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern time, Monday through Friday.

DATES: To be considered, submissions must be received by December 15, 2008.

SUMMARY: This request is being issued to initiate the National Cyber Leap Year under the Comprehensive National Cybersecurity Initiative (CNCI). The goal of the National Cyber Leap Year is to identify the most promising game-changing ideas with the potential to reduce vulnerabilities to cyber exploitations by altering the cybersecurity landscape. This RFI is the first step in constructing a national research and development agenda in support of the CNCI. Multidisciplinary contributions from organizations with cybersecurity interests are especially encouraged.

SUPPLEMENTARY INFORMATION:

Overview: This Request for Information (RFI) is issued under the Comprehensive National Cybersecurity Initiative (CNCI), established within Homeland Security Presidential Directive (HSPD)-23. The RFI was developed by the Networking and Information Technology Research and Development (NITRD) Program Senior Steering Group (SSG) for Cybersecurity to invite participation in a National Cyber Leap Year whose goal is an integrated national approach to make cyberspace safe for the American way of life.

Background: We are a cyber nation. The U.S. information infrastructure—including telecommunications and computer networks and systems and the data that reside on them—is critical to virtually every aspect of modern life. This information infrastructure is

increasingly vulnerable to exploitation, disruption and destruction by a growing array of adversaries. The President's CNCI plan calls for leap-ahead research and technology to reduce vulnerabilities to asymmetric attack in cyberspace. Unlike many research agenda that aim for steady progress in the advancement of science, the leap-ahead effort seeks just a few revolutionary ideas with the potential to reshape the landscape. These *game-changing* technologies (or non-technical mechanisms that are made possible through technology), developed and deployed over the next decade, will fundamentally change the cyber game into one where the good guys have an advantage. Leap-ahead technologies are so-called because they enable us to leap over the obstacles preventing us from being where we want to be. These advances may require years of concerted research and development to be fully realized, good ideas often do, however the intent is to start now and gain momentum as intermediate results emerge.

Objective: The National Cyber Leap Year has two main goals: (1) Construction of a national research and technology agenda that both identifies the most promising ideas and describes the strategy that brings those ideas to fruition; and (2) jumpstarting game-changing, multi-disciplinary development efforts.

The Leap Year will run during fiscal year 2009, and will comprise two stages, prospecting and focusing.

Stage One, which we open with this formal announcement and describe in detail below, canvasses the cybersecurity community for ideas. Our aim is to hear from all those who wish to help.

The heart of Stage Two, which begins February 1, 2009, is a series of workshops to develop the best ideas from Stage One. As the year progresses we will publish four types of findings:

(1) *Game-changers*—descriptions of the paradigm-busters that technology will make possible; (2) *Technical Strategy*—as specifically as possible, the invention and/or research which needs to be done; (3) *Productization/Implementation*—how the capability will be packaged, delivered and used, and by whom; and (4) *Recommendations*—prescriptions for success, to include funding, policies, authorities, tasking-whatever would smooth the way to realization of the game-changing capability.

Deadline for Submission under this RFI: We anticipate multiple cycles of Stage One opportunities. The first Stage One cycle is covered by this RFI and will close December 15, 2008.

Subsequent cycles will be announced by separate RFIs. All Stage One cycles are expected to be complete by April 15, 2009.

Stage One Description

What We Are Looking For

Contributors may submit up to 3 leap-ahead technology concepts. Multidisciplinary contributions from organizations with cybersecurity interests are especially encouraged.

Cognizant of the limits of conventional studies and reports, substantial thought has been given to what framework and methodology might render the community's best ideas understandable, compelling and actionable to those who need to support them, fund them and adopt them. Since our search is for game-changing concepts, we ask that submitters explain their ideas in terms of a game. Many ideas will fall into the following three categories. Ideas that:

Morph the gameboard—(change the defensive terrain (permanently or adaptively) to make it harder for the attacker to maneuver and achieve his goals).

Example: Non-persistent virtual machines—every time the enemy takes a hill, the hill goes away.

Change the rules—(lay the foundation for cyber civilization by changing network protocols and norms to favor our society's values).

Example: The no-call list—direct marketers have to "attack" on customer terms now.

Raise the stakes—(make the cost to play less advantageous to the attacker by raising risk, lowering value, etc.).

Example: Charging for e-mail—making the SPAMmer ante up means a lot more fish have to bite for SPAM to pay.

Ideas that change the game in some other dimension are also welcome; just be sure to explain how.

Who Can Participate

This RFI is open to all and we especially encourage public and private sector groups (e.g. universities, government laboratories, companies, non-profit groups, user groups) with cybersecurity interests to participate. Collaborative, multi-disciplinary efforts are also highly encouraged. Participants in Stage One must be willing to participate in Stage Two should one of their ideas be selected. Participants must also be willing to have their ideas posted for discussion on a public Web site and/or included in our final report.

How We Will Use It

The best ideas from Stage One will go on to Stage Two. Stage One submissions may be posted on our Web site for elaboration and improvement, as a key goal of the leap year is to engage diverse sectors (e.g. government, academia, commercial, international) in identifying multi-dimensional strategies and, where it makes sense, in rolling up their sleeves and starting to work. Submissions crafted with that larger community in mind will be the most compelling and influential.

Leap Year interim result and emerging guidance will be posted at: <http://www.nitrd.gov/leapyear/>. Questions and submissions should be addressed to: leapyear@nitrd.gov.

In accordance with FAR 15.202(3), responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. Responders are solely responsible for all expenses associated with responding to this RFI, including any subsequent requests for proposals.

All responses must be no more than two pages long (12 pt font, 1" margins) and in this form:

Who you are—Name, credentials, group membership.

Game-changing dimension—Board, Rules, Stakes?

Concept—What is the idea and why does it change the game?

Vision—Make us believe in your idea (What would the world look like if this were in place? How would people get it, use it? What makes you think this is possible? What needs to happen for this to become real? Which parts already exist; which parts need to be invented?).

Method—What process did you use to formulate and refine your concept? What assumptions or dependencies underlie your analysis?

Dream team—Who are the people you'd need to have on your team to make this real? If you just know disciplines that's OK. If you have names, explain what those people do. If your idea is selected for further consideration, we will do our best to bring these people together for a phase two workshop. Responses must be submitted via <http://www.nitrd.gov/leapyear/> or e-mailed to leapyear@nitrd.gov. Responses to this RFI must be received by December 15, 2008 so that arrangements can be made for Stage Two activities beginning on or about February 1, 2009. Additional Stage One cycles, if any, will be announced by separate RFI with all Stage One activities expected to be complete by April 15, 2009.

Appendix A contains a sample submission and review considerations.

Appendix A

Sample Submission

Who you are—*quieteveningathome.org*—We are a 501c3 group with 50,000 members dedicated to the preservation of the dinner hour as the core of American civilization.

Game-changing dimension—Change the rules.

Concept—Telemarketers are using our resources and time to market their products. They can call and interrupt our dinners and use our own telephones to reach us. What if we changed the rules to “don’t call us, we’ll call you?”

Vision—The vision is a national do-not-call register. People should be able to go to donotcall.gov and register their phone number. It would be illegal for telemarketers who have not been given permission to call someone. If a telemarketer makes an illegal call, the recipient should be able to report them to a government agency and they should be fined. The technology to do this is easy, we are not sure about the laws and policies. Courts have ruled differently on this issue at different times. We think the political climate is friendly today for Federal legislation.

Method—We announced our search for ideas on our website and submissions were made there. We also publicized through restaurant and catering associations with whom we often partner, who offered interruption-free meals for brainstorming sessions. Participation was not limited to members, but could not be anonymous, since it was our intention to follow up with submitters. The Board of Directors of QEAH enlisted the aid of Prandia University to work with the submitters of the best ideas to develop them into even better ideas. The Board ensured all the aspects described in the Leap Year RFI were addressed in our final submissions.

Dream team—Federal Trade Commission, Federal Communications Commission, constitutional lawyer, Telemarketers’ Association, Consumer Union, Oracle or other database company.

Review Considerations

Submissions will be reviewed by the NITRD Senior Steering Group for Cybersecurity using the following considerations:

- Would it change the game?
- How clear is the way forward?
- What heights are the hurdles that may be found in the way forward?

Submitted by the National Science Foundation for the National Coordination Office (NCO) for

Networking and Information Technology Research and Development (NITRD) on October 8, 2008.

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. E8–24257 Filed 10–10–08; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 52–029 AND 52–030]

Progress Energy Florida, Inc. Acceptance for Docketing of an Application for Combined License for Levy County Nuclear Power Plant Units 1 and 2

By letter dated July 28, 2008, Progress Energy Florida, Inc. (PEF) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a combined license (COL) for two AP1000 advanced passive pressurized water reactors in accordance with the requirements contained in 10 CFR 52, “Licenses, Certifications and Approvals for Nuclear Power Plants.” These reactors will be identified as Levy Nuclear Power Plant (LNP) Units 1 and 2 and located at a site in Levy County, Florida. A notice of receipt and availability of this application is currently awaiting publication in the **Federal Register**.

The NRC staff has determined that PEF has submitted information in accordance with 10 CFR Part 2, “Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders,” and 10 CFR Part 52 that is acceptable for docketing. The docket numbers established for the LNP Units 1 and 2 COL application are 52–029 and 52–030, respectively.

The NRC staff will perform a detailed technical review of the application. Docketing of the application does not preclude the NRC from requesting additional information from the applicant as the review proceeds, nor does it predict whether the Commission will grant or deny the application. The Commission will conduct a hearing in accordance with Subpart L, “Informal Hearing Procedures for NRC Adjudications,” of 10 CFR Part 2 and will receive a report on the COL application from the Advisory Committee on Reactor Safeguards in accordance with 10 CFR 52.87, “Referral to the Advisory Committee on Reactor Safeguards (ACRS).” If the Commission finds that the COL application meets the applicable standards of the Atomic Energy Act and the Commission’s

regulations, and that required notifications to other agencies and bodies have been made, the Commission will issue a COL, in the form and contain conditions and limitations that the Commission finds appropriate and necessary.

In accordance with 10 CFR Part 51, the Commission will also prepare an environmental impact statement for the proposed action. Pursuant to 10 CFR 51.26, and as part of the environmental scoping process, the staff intends to hold a public scoping meeting. Detailed information regarding this meeting will be included in a future **Federal Register** notice.

Finally, the Commission will publish in the **Federal Register** a notice of hearing, which will notice the opportunity to petition to intervene.

Documents may be examined, and/or copied for a fee, at the NRC’s Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852, and will be accessible electronically through the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room link at the NRC Web site <http://www.nrc.gov/reading-rm/adams.html>. The application is also available at <http://www.nrc.gov/reactors/new-licensing/col.html>. Persons who do not have access to ADAMS or who encounter problems in accessing documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1–800–397–4209, 301–415–4737, or by e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland, this 6th day of October 2008.

For the Nuclear Regulatory Commission.

Brian Anderson,

Lead Project Manager, AP1000 Projects Branch 1, Division of New Reactor Licensing, Office of New Reactors.

[FR Doc. E8–24266 Filed 10–10–08; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

Progress Energy Florida, Inc. Notice of Receipt and Availability of Application for a Combined License

On July 30, 2008, Progress Energy Florida (PEF, or the applicant) filed with the Nuclear Regulatory Commission (NRC, the Commission) pursuant to Section 103 of the Atomic Energy Act and Title 10 of the Code of Federal Regulations (10 CFR) Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” an

application for a Combined License (COL) for two AP1000 nuclear power plants at site located in Levy County, Florida. The reactors are to be identified as Levy Nuclear Plant (LNP) Units 1 and 2.

An applicant may seek a COL in accordance with Subpart C of 10 CFR Part 52. The information submitted by the applicant includes certain administrative information such as financial qualifications submitted pursuant to 10 CFR 52.77, as well as technical information submitted pursuant to 10 CFR 52.79. The applicant also requested exemptions from certain requirements of Section IV.A.2. Appendix D to 10 CFR Part 52 and 10 CFR 52.79 (a)(44) as documented in part 7 of the application.

Subsequent **Federal Register** notices will address the acceptability of the tendered COL application for docketing and provisions for participation of the public in the COL review process.

A copy of the application is available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, and via the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. The accession number for the cover letter of the application is ML082260277. Future publicly available documents related to the application will also be posted in ADAMS.

Persons who do not have access to ADAMS, or who encounter problems in accessing the documents located in ADAMS, should contact the NRC Public Document Room staff by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail to pdr@nrc.gov. The application is also available at <http://www.nrc.gov/reactors/newlicensing/col.html>.

Dated at Rockville, Maryland, this day 15th of September 2008.

For the Nuclear Regulatory Commission.

Brian Anderson,

*Lead Project Manager, AP1000 Projects
Branch 1, Division of New Reactor Licensing,
Office of New Reactors.*

[FR Doc. E8-24265 Filed 10-10-08; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Notice; Applications and Amendments to Facility Operating Licenses Involving Proposed No Significant Hazards Considerations and Containing Sensitive Unclassified Non-Safeguards Information or Safeguards Information and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information or Safeguards Information

I. Background

Pursuant to section 189a. (2) of the Atomic Energy Act of 1954, as amended (the Act), the U.S. Nuclear Regulatory Commission (the Commission or NRC staff) is publishing this notice. The Act requires the Commission publish notice of any amendments issued, or proposed to be issued and grants the Commission the authority to issue and make immediately effective any amendment to an operating license upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person.

This notice includes notices of amendments containing sensitive unclassified non-safeguards information (SUNSI) or safeguards information (SGI).

Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing

The Commission has made a proposed determination that the following amendment requests involve no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The basis for this proposed determination for each amendment request is shown below.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the

expiration of 60 days after the date of publication of this notice. The Commission may issue the license amendment before expiration of the 60-day period provided that its final determination is that the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior to the expiration of the 30-day comment period should circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example in derating or shutdown of the facility. Should the Commission take action prior to the expiration of either the comment period or the notice period, it will publish in the **Federal Register** a notice of issuance. Should the Commission make a final No Significant Hazards Consideration Determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rulemaking, Directives and Editing Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this **Federal Register** notice. Written comments may also be delivered to Room 6D44, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1F21, 11555 Rockville Pike (first floor), Rockville, Maryland. The filing of requests for a hearing and petitions for leave to intervene is discussed below.

Within 60 days after the date of publication of this notice, person(s) may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request via electronic submission through the NRC E-Filing system for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested person(s) should consult a current copy of 10 CFR 2.309, which is available at the Commission's PDR, located at One White Flint North, Public File Area O1F21, 11555 Rockville Pike

(first floor), Rockville, Maryland, or at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part002/part002-0309.html>. Publicly available records will be accessible from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm.html>. If a request for a hearing or petition for leave to intervene is filed within 60 days, the Commission or a presiding officer designated by the Commission or by the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the Chief Administrative Judge of the Atomic Safety and Licensing Board will issue a notice of a hearing or an appropriate order.

As required by 10 CFR 2.309, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements: (1) The name, address, and telephone number of the requestor or petitioner; (2) the nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the requestor's/petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the requestor's/petitioner's interest. The petition must also set forth the specific contentions which the petitioner/requestor seeks to have litigated at the proceeding.

Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner/requestor shall provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner/requestor intends to rely in proving the contention at the hearing. The petitioner/requestor must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner/requestor intends to rely to establish those facts or expert opinion. The petition must include sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the

amendment under consideration. The contention must be one which, if proven, would entitle the petitioner/requestor to relief. A petitioner/requestor who fails to satisfy these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing.

If a hearing is requested, and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

All documents filed in NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or any other documents filed in the proceeding prior to submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC E-Filing rule, which the NRC promulgated on August 28, 2007 (72 FR 49139). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek a waiver in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least ten (10) days prior to the filing deadline, the petitioner/requestor must contact the Office of the Secretary by e-mail at hearing.docket@nrc.gov, or by calling (301) 415-1677, to request (1) a digital ID certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is

participating; and/or (2) creation of an electronic docket for the proceeding (even in instances in which the petitioner/requestor (or its counsel or representative) already holds an NRC-issued digital ID certificate). Each petitioner/requestor will need to download the Workplace Forms Viewer™ to access the Electronic Information Exchange (EIE), a component of the E-Filing system. The Workplace Forms Viewer™ is free and is available at <http://www.nrc.gov/site-help/e-submittals/install-viewer.html>. Information about applying for a digital ID certificate is available on NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/apply-certificates.html>.

Once a petitioner/requestor has obtained a digital ID certificate, had a docket created, and downloaded the EIE viewer, it can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. A filing is considered complete at the time the filer submits its documents through EIE. To be timely, an electronic filing must be submitted to the EIE system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The EIE system also distributes an e-mail notice that provides access to the document to the NRC Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically may seek assistance through the "Contact Us" link located on the NRC Web site at <http://www.nrc.gov/site-help/e-submittals.html> or by calling the NRC technical help line, which is available between 8:30 a.m. and 4:15 p.m., Eastern Time, Monday through Friday. The help line number is (800) 397-4209 or locally, (301) 415-4737.

Participants who believe that they have a good cause for not submitting documents electronically must file a motion, in accordance with 10 CFR

2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, *Attention: Rulemaking and Adjudications Staff*; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, *Attention: Rulemaking and Adjudications Staff*. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service.

Non-timely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer, or the Atomic Safety and Licensing Board that the petition and/or request should be granted and/or the contentions should be admitted, based on a balancing of the factors specified in 10 CFR 2.309(c)(1)(i)–(viii).

Documents submitted in adjudicatory proceedings will appear in NRC's electronic hearing docket which is available to the public at http://ehd.nrc.gov/ehd_proceeding/home.asp, unless excluded pursuant to an order of the Commission, an Atomic Safety and Licensing Board, or a Presiding Officer. Participants are requested not to include personal privacy information, such as Social Security numbers, home addresses, or home phone numbers in their filings. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

For further details with respect to this amendment action, see the application for amendment which is available for public inspection at the Commission's PDR, located at One White Flint North, Public File Area 01F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the ADAMS Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the PDR Reference staff at 1 (800) 397–

4209, (301) 415–4737 or by email to pdr.resource@nrc.gov.

Energy Northwest, Docket No. 50–397, Columbia Generating Station, Benton County, Washington

Date of amendment request: July 16, 2008.

Description of amendment request: This amendment request contains sensitive unclassified non-safeguards information (SUNSI). The proposed changes revise Technical Specifications 3.1.4, “Control Rod Scram Times,” 3.2.2, “Minimum Critical Power Ratio (MCPR),” and 5.6.3, “Core Operating Limits Report (COLR).” The proposed changes involve incorporating the analytical methodologies associated with operation of Global Nuclear Fuel-Americas (GNF) fuel into the licensing basis to support transition to GNF GE14 fuel.

Basis for proposed no significant hazards consideration determination: As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The requested changes to the Scram Time LCO [limiting condition for operation] and associated scram times are based on ensuring that the analytical approach utilized by GNF [Global Nuclear Fuel-Americas] is met. A scram time slower than required might result in an increase in the consequences of an accident. The CGS [Columbia Generating Station] proposed changes do not constitute an increase to any consequences to any accidents because the slower allowed scram times for the 5% insertion limit and the increase in the number of allowed “slow” control rods are bounded by the GNF analysis which demonstrates that all required limits are met.

The frequency at which control rod scram time is verified does not affect any postulated precursors to an accident. Revising the frequency for verifying scram time of the control rods is not expected to impact the scram time. Verifying that the scram time is acceptable will continue to be required prior to plant startup following fuel movement or work on the control rods or control rod drive system. Therefore, revising the frequency for verifying insertion time to clarify when it is required does not involve a significant increase in the probability or consequences of an accident.

The addition of a new administrative surveillance to ensure that the GNF analytical bases continue to be met with SR [surveillance requirement] 3.2.2.2 is an enhancement that requires CGS to confirm that operation of the plant remains within the analyses that supports safe operation.

The addition of Reference 7.1 [NEDE–24011–P–A and NEDE–24011–P–A–US, “General Electric Standard Application for Reactor Fuel (GESTAR II) and Supplement for United States,” Global Nuclear Fuel], which has been previously approved by the NRC, to the COLR [core operating limits report] represents an administrative type change required to support a transition to a different fuel vendor's analytical methods. The proposed change to TS [technical specification] 5.6.3.b also includes the addition of the GEXL97 correlation for CGS (Attachment 4 [of the licensee's application]). CGS plans to use the analytical methods of the new fuel vendor GNF for the analysis of the mixed core consisting of ATRIUM–10 and GE14 fuel bundle types. The GEXL97 correlation appropriately determines the critical power for ATRIUM–10 fuel. In addition, the GEXL97 application range covers the range of expected operation of the ATRIUM–10 fuel during normal steady state and transient conditions in the CGS reload core.

The requested TS changes concern the use of analytical methods and do not involve any plant modifications or operational changes that could affect any postulated accident precursors or accident mitigation systems and do not introduce any new accident initiation mechanisms. The proposed changes have no effect on the type or amount of radiation released, and have no effect on predicted offsite doses in the event of an accident. Thus, the proposed changes do not affect the probability of an accident previously evaluated nor do they increase the radiological consequences of any accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed TS changes will not change the design function, reliability, performance, or operation of any plant systems, components, or structures. It does not create the possibility of a new failure mechanism, malfunction, or accident initiator not considered in the design and licensing bases. Plant operation will continue to be within the core operating limits that are established using NRC approved methods that are applicable to the CGS design and the CGS fuel.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

Sufficiently rapid insertion of control rods following certain accidents (scram time) will prevent fuel damage, and thereby maintain a margin of safety to fuel damage. The proposed changes to the TS ensure that adequate control rod testing continues to be maintained with implementation of this activity. The administrative changes proposed involving control rod scram time testing continue to meet analytical requirements and hence do not involve a significant reduction in the margin of safety.

The proposed changes also involve the addition of GNF methodology, Reference 7.1, and the GEXL97 correlation, Attachment 4, to the list of analytical methods in TS 5.6.3.b that can be used to determine core operating limits. Use of the GEXL97 correlation analytical method provides an equivalent level of protection as that currently provided. The administrative change involving the GEXL97 correlation does not alter any method of analysis as described in the NRC approved versions of Reference 7.1. The proposed change does not modify the SLs [safety limits] or setpoints at which protective actions are initiated, and does not change the requirements governing operation or availability of safety equipment assumed to operate to preserve the margin of safety.

Therefore, these proposed changes do not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of Title 10 of the Code of Federal Regulations 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

Attorney for licensee: William A. Horin, Esq., Winston & Strawn, 1700 K Street, NW., Washington, DC 20006-3817.

NRC Branch Chief: Michael T. Markley.

Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information (SGI) for Contention Preparation

Energy Northwest, Docket No. 50-397, Columbia Generating Station, Benton County, Washington

1. This order contains instructions regarding how potential parties to the proceedings listed above may request access to documents containing sensitive unclassified information (SUNSI and SGI).

2. Within ten (10) days after publication of this notice of opportunity for hearing, any potential party as defined in 10 CFR 2.4 who believes access to SUNSI or SGI is necessary for a response to the notice may request access to SUNSI or SGI. A "potential party" is any person who intends or may intend to participate as a party by demonstrating standing and the filing of an admissible contention under 10 CFR 2.309. Requests submitted later than ten (10) days will not be considered absent a showing of good cause for the late filing, addressing why the request could not have been filed earlier.

3. The requester shall submit a letter requesting permission to access SUNSI and/or SGI to the Office of the Secretary,

U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff, and provide a copy to the Associate General Counsel for Hearings, Enforcement and Administration, Office of the General Counsel, Washington, DC 20555-0001. The expedited delivery or courier mail address for both offices is U.S. Nuclear Regulatory Commission, 11555 Rockville Pike, Rockville, MD 20852. The e-mail address for the Office of the Secretary and the Office of the General Counsel are hearing.docket@nrc.gov and ogcmailcenter.resource@nrc.gov, respectively.¹ The request must include the following information:

a. A description of the licensing action with a citation to this **Federal Register** notice of opportunity for hearing;

b. The name and address of the potential party and a description of the potential party's particularized interest that could be harmed by the action identified in (a);

c. If the request is for SUNSI, the identity of the individual requesting access to SUNSI and the requester's need for the information in order to meaningfully participate in this adjudicatory proceeding, particularly why publicly available versions of the application would not be sufficient to provide the basis and specificity for a proffered contention;

d. If the request is for SGI, the identity of the individual requesting access to SGI and the identity of any expert, consultant or assistant who will aid the requester in evaluating the SGI, and information that shows:

(i) Why the information is indispensable to meaningful participation in this licensing proceeding; and

(ii) The technical competence (demonstrable knowledge, skill, experience, training or education) of the requester to understand and use (or evaluate) the requested information to provide the basis and specificity for a proffered contention. The technical competence of a potential party or its counsel may be shown by reliance on a qualified expert, consultant or assistant who demonstrates technical competence as well as trustworthiness and reliability, and who agrees to sign a non-disclosure affidavit and be bound by the terms of a protective order; and

¹ See footnote 6. While a request for hearing or petition to intervene in this proceeding must comply with the filing requirements of the NRC's "E-Filing Rule," the initial request to access SUNSI and/or SGI under these procedures should be submitted as described in this paragraph.

e. If the request is for SGI, Form SF-85, "Questionnaire for Non-Sensitive Positions," Form FD-258 (fingerprint card), and a credit check release form completed by the individual who seeks access to SGI and each individual who will aid the requester in evaluating the SGI. For security reasons, Form SF-85 can only be submitted electronically, through a restricted-access database. To obtain online access to the form, the requester should contact the NRC's Office of Administration at 301-415-0320.² The other completed forms must be signed in original ink, accompanied by a check or money order payable in the amount of \$191.00 to the U.S. Nuclear Regulatory Commission for each individual, and mailed to the: Office of Administration, Security Processing Unit, Mail Stop T-6E46, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0012.

These forms will be used to initiate the background check, which includes fingerprinting as part of a criminal history records check. **Note:** copies of these forms do *not* need to be included with the request letter to the Office of the Secretary, but the request letter should state that the forms and fees have been submitted as described above.

4. To avoid delays in processing requests for access to SGI, all forms should be reviewed for completeness and accuracy (including legibility) before submitting them to the NRC. Incomplete packages will be returned to the sender and will not be processed.

5. Based on an evaluation of the information submitted under items 2 and 3.a through 3.d, above, the NRC staff will determine within ten days of receipt of the written access request whether (1) there is a reasonable basis to believe the petitioner is likely to establish standing to participate in this NRC proceeding, and (2) there is a legitimate need for access to SUNSI or need to know the SGI requested. For SGI, the need to know determination is made based on whether the information requested is necessary (*i.e.*, indispensable) for the proposed recipient to proffer and litigate a specific contention in this NRC proceeding³ and whether the proposed

² The requester will be asked to provide his or her full name, Social Security number, date and place of birth, telephone number, and e-mail address. After providing this information, the requester usually should be able to obtain access to the online form within one business day.

³ Broad SGI requests under these procedures are thus highly unlikely to meet the standard for need to know; furthermore, staff redaction of information from requested documents before their release may be appropriate to comport with this requirement. These procedures do not authorize unrestricted disclosure or less scrutiny of a requester's need to

recipient has the technical competence (demonstrable knowledge, skill, training, education, or experience) to evaluate and use the specific SGI requested in this proceeding.

6. If standing and need to know SGI are shown, the NRC staff will further determine based upon completion of the background check whether the proposed recipient is trustworthy and reliable. The NRC staff will conduct (as necessary) an inspection to confirm that the recipient's information protection systems are sufficient to protect SGI from inadvertent release or disclosure. Recipients may opt to view SGI at the NRC's facility rather than establish their own SGI protection program to meet SGI protection requirements.

7. A request for access to SUNSI or SGI will be granted if:

a. The request has demonstrated that there is a reasonable basis to believe that a potential party is likely to establish standing to intervene or to otherwise participate as a party in this proceeding;

b. The proposed recipient of the information has demonstrated a need for SUNSI or a need to know for SGI, and that the proposed recipient of SGI is trustworthy and reliable;

c. The proposed recipient of the information has executed a Non-Disclosure Agreement or Affidavit and agrees to be bound by the terms of a Protective Order setting forth terms and conditions to prevent the unauthorized or inadvertent disclosure of SUNSI and/or SGI; and

d. The presiding officer has issued a protective order concerning the information or documents requested.⁴ Any protective order issued shall provide that the petitioner must file SUNSI or SGI contentions 25 days after receipt of (or access to) that information. However, if more than 25 days remain between the petitioner's receipt of (or access to) the information and the deadline for filing all other contentions (as established in the notice of hearing

or opportunity for hearing), the petitioner may file its SUNSI or SGI contentions by that later deadline.

8. If the request for access to SUNSI or SGI is granted, the terms and conditions for access to sensitive unclassified information will be set forth in a draft protective order and affidavit of non-disclosure appended to a joint motion by the NRC staff, any other affected parties to this proceeding,⁵ and the petitioner(s). If the diligent efforts by the relevant parties or petitioner(s) fail to result in an agreement on the terms and conditions for a draft protective order or non-disclosure affidavit, the relevant parties to the proceeding or the petitioner(s) should notify the presiding officer within ten (10) days, describing the obstacles to the agreement.

9. If the request for access to SUNSI is denied by the NRC staff or a request for access to SGI is denied by NRC staff either after a determination on standing and need to know or, later, after a determination on trustworthiness and reliability, the NRC staff shall briefly state the reasons for the denial. Before the Office of Administration makes an adverse determination regarding access, the proposed recipient must be provided an opportunity to correct or explain information. The requester may challenge the NRC staff's adverse determination with respect to access to SUNSI or with respect to standing or need to know for SGI by filing a challenge within ten (10) days of receipt of that determination with (a) the presiding officer designated in this proceeding; (b) if no presiding officer has been appointed, the Chief Administrative Judge, or if he or she is unavailable, another administrative judge, or an administrative law judge with jurisdiction pursuant to § 2.318(a); or (c) if another officer has been designated to rule on information access issues, with that officer. In the same manner, an SGI requester may challenge

an adverse determination on trustworthiness and reliability by filing a challenge within fifteen (15) days of receipt of that determination.

In the same manner, a party other than the requester may challenge an NRC staff determination granting access to SUNSI whose release would harm that party's interest independent of the proceeding. Such a challenge must be filed within ten (10) days of the notification by the NRC staff of its grant of such a request.

If challenges to the NRC staff determinations are filed, these procedures give way to the normal process for litigating disputes concerning access to information. The availability of interlocutory review by the Commission of orders ruling on such NRC staff determinations (whether granting or denying access) is governed by 10 CFR 2.311.⁶

10. The Commission expects that the NRC staff and presiding officers (and any other reviewing officers) will consider and resolve requests for access to SUNSI and/or SGI, and motions for protective orders, in a timely fashion in order to minimize any unnecessary delays in identifying those petitioners who have standing and who have propounded contentions meeting the specificity and basis requirements in 10 CFR Part 2. Attachment 1 to this Order summarizes the general target schedule for processing and resolving requests under these procedures.

Dated at Rockville, Maryland, this 7th day of October 2008.

For the Nuclear Regulatory Commission.
Annette L. Vietti-Cook,
Secretary of the Commission.

Attachment 1—General Target Schedule for Processing and Resolving Requests for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information (SGI) in This Proceeding

Day	Event/activity
0	Publication of Federal Register notice of proposed action and opportunity for hearing, including order with instructions for access requests.
10	Deadline for submitting requests for access to SUNSI and/or SGI with information: Supporting the standing of a potential party identified by name and address; describing the need for the information in order for the potential party to participate meaningfully in an adjudicatory proceeding; demonstrating that access should be granted (e.g., showing technical competence for access to SGI); and, for SGI, including application fee for fingerprint/background check.

know than ordinarily would be applied in connection with an already-admitted contention.

⁴ If a presiding officer has not yet been designated, the Chief Administrative Judge will issue such orders, or will appoint a presiding officer to do so.

⁵ Parties/persons other than the requester and the NRC staff will be notified by the NRC staff of a

favorable access determination (and may participate in the development of such a motion and protective order) if it concerns SUNSI and if the party/person's interest independent of the proceeding would be harmed by the release of the information (e.g., as with proprietary information).

⁶ As of October 15, 2007, the NRC's final "E-Filing Rule" became effective. See Use of

Electronic Submissions in Agency Hearings (72 FR 49139; Aug. 28, 2007). Requesters should note that the filing requirements of that rule apply to appeals of NRC staff determinations (because they must be served on a presiding officer or the Commission, as applicable), but not to the initial SUNSI/SGI requests submitted to the NRC staff under these procedures.

Day	Event/activity
60	Deadline for submitting petition for intervention containing: (i) Demonstration of standing; (ii) all contentions whose formulation does not require access to SUNSI and/or SGI (+25 Answers to petition for intervention; +7 petitioner/requestor reply).
20	NRC staff informs the requester of the staff's determination whether the request for access provides a reasonable basis to believe standing can be established and shows (1) need for SUNSI or (2) need to know for SGI. (For SUNSI, NRC staff also informs any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information.) If NRC staff makes the finding of need for SUNSI and likelihood of standing, NRC staff begins document processing (preparation of redactions or review of redacted documents). If NRC staff makes the finding of need to know for SGI and likelihood of standing, NRC staff begins background check (including fingerprinting for a criminal history records check), information processing (preparation of redactions or review of redacted documents), and readiness inspections.
25	If NRC staff finds no "need," "need to know," or likelihood of standing, the deadline for petitioner/requester to file a motion seeking a ruling to reverse the NRC staff's denial of access; NRC staff files copy of access determination with the presiding officer (or Chief Administrative Judge or other designated officer, as appropriate). If NRC staff finds "need" for SUNSI, the deadline for any party to the proceeding whose interest independent of the proceeding would be harmed by the release of the information to file a motion seeking a ruling to reverse the NRC staff's grant of access.
30	Deadline for NRC staff reply to motions to reverse NRC staff determination(s).
40	(Receipt +30) If NRC staff finds standing and need for SUNSI, deadline for NRC staff to complete information processing and file motion for Protective Order and draft Non-Disclosure Affidavit. Deadline for applicant/licensee to file Non-Disclosure Agreement for SUNSI.
190	(Receipt +180) If NRC staff finds standing, need to know for SGI, and trustworthiness and reliability, deadline for NRC staff to file motion for Protective Order and draft Non-disclosure Affidavit (or to make a determination that the proposed recipient of SGI is not trustworthy or reliable). Note: Before the Office of Administration makes an adverse determination regarding access, the proposed recipient must be provided an opportunity to correct or explain information.
205	Deadline for petitioner to seek reversal of a final adverse NRC staff determination either before the presiding officer or another designated officer.
A	If access granted: Issuance of presiding officer or other designated officer decision on motion for protective order for access to sensitive information (including schedule for providing access and submission of contentions) or decision reversing a final adverse determination by the NRC staff.
A + 3	Deadline for filing executed Non-Disclosure Affidavits. Access provided to SUNSI and/or SGI consistent with decision issuing the protective order.
A + 28	Deadline for submission of contentions whose development depends upon access to SUNSI and/or SGI. However, if more than 25 days remain between the petitioner's receipt of (or access to) the information and the deadline for filing all other contentions (as established in the notice of hearing or opportunity for hearing), the petitioner may file its SUNSI or SGI contentions by that later deadline.
A + 53	(Contention receipt +25) Answers to contentions whose development depends upon access to SUNSI and/or SGI.
A + 60	(Answer receipt +7) Petitioner/Intervenor reply to answers.
B	Decision on contention admission.

[FR Doc. E8-24167 Filed 10-10-08; 8:45 am]

BILLING CODE 7590-01-P

SECURITIES AND EXCHANGE COMMISSION

Proposed Collection; Comment Request

Upon Written Request, Copies Available From: U.S. Securities and Exchange Commission, Office of Investor Education and Advocacy, Washington, DC 20549-0213.

Extension:

Rule 12a-5; OMB Control No. 3235-0079; SEC File No. 270-85.

Notice is hereby given that pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission ("Commission") is soliciting comments on the existing collection of information provided for in: Rule 12a-5 (Temporary exemption of substituted or additional securities) (17 CFR 240.12a-5) and Form 26 (for notification of the admission to trading of a substituted or additional class of security under Rule 12a-5) (17

CFR 249.26) under the Securities Exchange Act of 1934 (15 U.S.C. 78a *et seq.*) ("Exchange Act"). The Commission plans to submit this existing collection of information to the Office of Management and Budget ("OMB") for extension and approval.

Section 12(a) of the Exchange Act generally makes it unlawful for any security to be traded on a national securities exchange unless such security is registered on the exchange in accordance with the provisions of the Exchange Act and the rules and regulations thereunder.

Rule 12a-5 (the "Rule") under the Exchange Act and Form 26 (the "Form") were adopted by the Commission in 1936 and 1955, respectively, pursuant to Sections 3(a)(12), 10(b), and 23(a) of the Exchange Act. Subject to certain conditions, Rule 12a-5 affords a temporary exemption (generally for up to 120 days) from the registration requirements of Section 12(a) of the Exchange Act for a new security when the holders of a security admitted to trading on a national securities exchange obtain the right (by operation of law or otherwise) to acquire all or any

part of a class of another or substitute security of the same or another issuer, or an additional amount of the original security. The purpose of the exemption is to avoid an interruption of exchange trading to afford time for the issuer of the new security to list and register it, or for the exchange to apply for unlisted trading privileges.

Under paragraph (d) of Rule 12a-5, after an exchange has taken action to admit any security to trading pursuant to the provisions of the Rule, the exchange is required to file with the Commission a notification on Form 26. Form 26 provides the Commission with certain information regarding a security admitted to trading on an exchange pursuant to Rule 12a-5, including: (1) The name of the exchange, (2) the name of the issuer, (3) a description of the security, (4) the date(s) on which the security was or will be admitted to when-issued and/or regular trading, and (5) a brief description of the transaction pursuant to which the security was or will be issued.

The Commission generally oversees the national securities exchanges. This mission requires that, under Section

12(a) of the Exchange Act specifically, the Commission receive notification of any securities that are permitted to trade on an exchange pursuant to the temporary exemption under Rule 12a-5. Without the Rule and the Form, the Commission would be unable fully to implement these statutory responsibilities.

There are currently eleven national securities exchanges subject to Rule 12a-5. The Commission staff estimates that there could be one Form 26 filed every five years. The reporting burdens are not typically spread evenly among the exchanges. For purposes of this analysis of burden, however, the Commission staff has assumed that each exchange files an equal number of Form 26 notifications. Each notification requires approximately 20 minutes to complete. Accordingly, the Commission staff estimates the annual aggregate compliance burden for all respondents in a given year would be approximately 4 minutes (20 minutes/report $\times$.2 reports/year = 4 minutes), and for each respondent the annual compliance burden would be approximately .36 minutes (4 minutes/respondent $\div$ 11 respondents = .36 minutes), or .006 hours.

Based on the most recent available information, the Commission staff estimates that the cost to respondents of completing a notification on Form 26 is, on average, \$43.23 per response. Therefore, the Commission staff estimates that the total annual related reporting cost per respondent is \$.86 (.02 responses/respondent/year $\times$ \$43.23 cost/response), for a total annual related cost to all respondents of \$9.46 (\$.86 cost/respondent $\times$ 11 respondents).

Written comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's estimates of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Comments should be directed to Lewis W. Walker, Acting Director/Chief Information Officer, Securities and Exchange Commission, c/o Shirley Martinson, 6432 General Green Way,

Alexandria, VA 22312 or send an e-mail to: PRA_Mailbox@sec.gov.

Dated: October 6, 2008.

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24235 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

Proposed Collection; Comment Request

Upon Written Request, Copy Available From: Securities and Exchange Commission, Office of Investor Education and Advocacy, Washington, DC 20549-0213.

Extension:

Form N-54A; SEC File No. 270-182; OMB Control No. 3235-0237.

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission (the "Commission") is soliciting comments on the collection of information summarized below. The Commission plans to submit this existing collection of information to the Office of Management and Budget for extension and approval.

- Form N-54A (17 CFR 274.53) under the Investment Company Act of 1940 (15 U.S.C. 80a-1 *et seq.*) (the "Act"); Notification of Election to be Subject to Sections 55 through 65 of the Investment Company Act of 1940 (15 U.S.C. 80a-54 through 64) Filed Pursuant to Section 54(a) of the Act (15 U.S.C. 80a-53(a)).

Form N-54A is a notification to the Commission of election to be regulated as a business development company. A company making such an election only has to file a Form N-54A once.

It is estimated that approximately 6 respondents per year file with the Commission a Form N-54A. Form N-54A requires approximately 0.5 burden hours per response resulting from creating and filing the information required by the Form. The total burden hours for Form N-54A would be 3.0 hours per year in the aggregate. The estimated annual burden of 3.0 hours represents a decrease of 20.0 hours over the prior estimate of 23.0 hours. The decrease in burden hours is attributable to a decrease in the number of respondents from 46 to 6.

The estimate of average burden hours for Form N-54A is made solely for the purposes of the PRA and is not derived from a comprehensive or even

representative survey or study of the costs of Commission rules and forms.

Written comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted in writing within 60 days of this publication.

Please direct your written comments to Lewis W. Walker, Acting Director/CIO, Securities and Exchange Commission, C/O Shirley Martinson, 6432 General Green Way, Alexandria, VA 22312; or send an e-mail to: PRA_Mailbox@sec.gov.

Dated: October 6, 2008.

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24239 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 28435; 812-13063]

Calamos Convertible Opportunities and Income Fund, et al.; Notice of Application

October 7, 2008.

AGENCY: Securities and Exchange Commission ("Commission").

ACTION: Notice of application under section 6(c) of the Investment Company Act of 1940 ("Act") for an exemption from section 19(b) of the Act and rule 19b-1 under the Act.

Summary of Application: Applicants request an order to permit certain closed-end investment companies to make periodic distributions of long-term capital gains with respect to their outstanding common stock as frequently as twelve times each year, and as frequently as distributions are specified by or in accordance with the terms of any outstanding preferred stock that such investment companies may issue.

Applicants: Calamos Convertible Opportunities and Income Fund, Calamos Convertible and High Income Fund, Calamos Strategic Total Return

Fund, Calamos Global Total Return Fund, and Calamos Global Dynamic Income Fund (collectively, the "Funds") and Calamos Advisors LLC (the "Adviser").

Filing Dates: January 27, 2004, March 16, 2007 and July 24, 2008.

Hearing or Notification of Hearing: An order granting the application will be issued unless the Commission orders a hearing. Interested persons may request a hearing by writing to the Commission's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the Commission by 5:30 p.m. on November 3, 2008, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the Commission's Secretary.

ADDRESSES: Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090; Applicants, 2020 Calamos Court, Naperville, IL 60563.

FOR FURTHER INFORMATION CONTACT: Wendy Friedlander, Senior Counsel, at (202) 551-6837, or James M. Curtis, Branch Chief, at (202) 551-6825 (Division of Investment Management, Office of Chief Counsel).

SUPPLEMENTARY INFORMATION: The following is a summary of the application. The complete application may be obtained for a fee at the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549-1520 (telephone (202) 551-5850).

Applicants' Representations

1. The Funds are registered closed-end investment companies organized as Delaware statutory trusts.¹ The common stock issued by each Fund is listed and traded on the New York Stock Exchange. The Funds had issued auction rate preferred ("ARP") stock, most of which they have redeemed; applicants are exploring means to redeem the remaining outstanding ARP

stock. In the future, applicants may issue other preferred stock. Applicants believe that the Funds' common stockholders desire current income periodically and may favor a fixed distribution policy.

2. The Adviser is registered under the Investment Advisers Act of 1940 and is responsible for the overall management of each Fund.

3. Applicants represent that Board of Trustees (the "Board") of each of the Funds, including a majority of the members who were not "interested persons" of the Fund as defined in Section 2(a)(19) of the Act (the "Independent Trustees"), requested, and the Adviser provided, such information as was reasonably necessary to an informed determination of whether the Board should adopt a proposed distribution plan. In particular, the Board and the Independent Trustees reviewed information regarding the purpose and terms of a proposed distribution policy, the likely effects of such policy on such Fund's long-term total return (in relation to market price and net asset value ("NAV") per common share) and the relationship between such Fund's distribution rate on its common stock under the policy and such Fund's total return (in relation to net asset value per share); whether the rate of distribution would exceed such Fund's expected total return in relation to its NAV per share; and any foreseeable material effects of such policy on such Fund's long-term total return (in relation to market price and NAV per share). The Independent Trustees also considered what conflicts of interest the Adviser and the affiliated persons of the Adviser and each such Fund might have with respect to the adoption or implementation of such policy. After considering such information the Board, including the Independent Trustees, of each Fund approved a distribution policy with respect to its common stock (the "Plan") and determined that such Plan is consistent with such Fund's investment objectives and in the best interests of such Fund's common stockholders.

4. Applicants state that the purpose of the Plan of each Fund is to permit such Fund to distribute, over the course of each year, through periodic distributions as nearly equal as practicable and any required special distributions, an amount closely approximating the total taxable income of such Fund during such year and, if so determined by its Board, all or a portion of the returns of capital paid by portfolio companies to such Fund during such year. Applicants represent

that under the Plan of each Fund, each such Fund would distribute to its respective common stockholders a fixed monthly percentage of the market price of such Fund's common stock at a particular point in time or a fixed monthly percentage of NAV per share at a particular time or a fixed monthly amount, any of which may be adjusted from time to time. Applicants represent that under each Plan, the minimum annual distribution rate with respect to such Fund's common stock would be independent of the Fund's performance during any particular period but would be expected to correlate with the Fund's performance over time. Applicants explain that, except for extraordinary distributions and potential increases or decreases in the final dividend periods in light of the Fund's performance for the entire calendar year and to enable the Fund to comply with the distribution requirements of Subchapter M of the Internal Revenue of 1986 (the "Code") for the calendar year, each distribution on the common stock would be at the stated rate then in effect. Applicants expect that over time the NAV distribution rate with respect to a Fund's common stock will approximately equal that Fund's total return on NAV.

5. Applicants state that prior to relying on the order requested in this application and implementing the Plan, the Board of each Fund will approve and adopt policies and procedures under Rule 38a-1 that are reasonably designed to ensure that all notices required to be sent to the Fund's shareholders pursuant to Section 19(a) of the Act, Rule 19a-1 thereunder and condition II below, and all other written communications by a Fund or its agents regarding distributions under the Plan ("Notices") comply with condition II below, and all other written communications by a Fund or its agents regarding distributions under the Plan include the disclosure required by condition III below. Applicants state that the Board of each Fund also will adopt policies and procedures that will require the Fund to keep records that demonstrate the Fund's compliance with all of the conditions of the requested order and that are necessary for such Fund to form the basis for, and demonstrate the calculation of, the amounts disclosed in its Notices.

Applicants' Legal Analysis

1. Section 19(b) generally makes it unlawful for any registered investment company ("fund") to make long-term capital gains distributions more than once each year. Rule 19b-1 limits the number of capital gains dividends, as

¹ Applicants request that any order issued granting the relief requested in the application also apply to any closed-end investment company that in the future: (a) Is advised by the Adviser (including any successor in interest) or by any entity controlling, controlled by, or under common control (within the meaning of section 2(a)(9) of the Act) with the Adviser; and (b) complies with the terms and conditions of the requested order. A successor in interest is limited to entities that result from a reorganization into another jurisdiction or a change in the type of business organization.

defined in section 852(b)(3)(C) of the Code ("distributions"), that a fund may make with respect to any one taxable year to one, plus a supplemental "clean up" distribution made pursuant to section 855 of the Code not exceeding 10% of the total amount distributed for the year, plus one additional capital gain dividend made in whole or in part to avoid the excise tax under section 4982 of the Code.

2. Section 6(c) provides that the Commission may, by order upon application, conditionally or unconditionally exempt any person, security, or transaction, or any class or classes of persons, securities or transactions, from any provision of the Act, if and to the extent that the exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

3. Applicants state that the one of the concerns underlying section 19(b) and rule 19b-1 is that stockholders might be unable to differentiate between regular distributions of capital gains and distributions of investment income. Applicants state, however, that rule 19a-1 effectively addresses this concern by requiring that a separate statement showing the sources of a distribution (e.g., estimated net income, net short-term capital gains, net long-term capital gains and/or return of capital) accompany any distributions (or the confirmation of the reinvestment of distributions) estimated to be sourced in part from capital gains or capital. Applicants state that the same information also is included in each Fund's annual reports to stockholders and on its IRS Form 1099-DIV, which is sent to each common and preferred stockholder who received distributions during the year.

4. Applicants further state that each Fund will make the additional disclosures required by the conditions set forth below, and each of them will adopt compliance policies and procedures in accordance with rule 38a-1 to ensure that all required Notices and disclosures are sent to stockholders. Applicants argue that by providing the information required by section 19(a) and rule 19a-1, and by complying with the procedures adopted under each Plan and the conditions listed below, the Funds would ensure that each Fund's stockholders are provided sufficient information to understand that their periodic distributions are not tied to the Fund's NAV (which for this purpose is the Fund's taxable income other than from capital gains) and realized capital gains to date, and may not represent

yield or investment return. Applicants also state that compliance with each Fund's compliance procedures and condition III set forth below will ensure that prospective stockholders and third parties are provided with the same information. Accordingly, applicants assert that continuing to subject the Funds to section 19(b) and rule 19b-1 would afford stockholders no extra protection.

5. Applicants note that section 19(b) and rule 19b-1 also were intended to prevent certain improper sales practices, including, in particular, the practice of urging an investor to purchase shares of a fund on the basis of an upcoming capital gains dividend ("selling the dividend"), where the dividend would result in an immediate corresponding reduction in NAV and would be in effect a taxable return of the investor's capital. Applicants assert that the "selling the dividend" concern should not apply to closed-end investment companies, such as the Funds, which do not continuously distribute shares. According to Applicants, if the underlying concern extends to secondary market purchases of stock of closed-end funds that are subject to a large upcoming capital gains distribution, adoption of a Plan actually helps minimize the concern by avoiding, through periodic distributions, any buildup of large end-of-the-year distributions.

6. Applicants also note that common stock of closed-end funds that invest primarily in equity securities often trades in the marketplace at a discount to its NAV. Applicants believe that this discount may be reduced for closed-end funds that pay relatively frequent distributions on their common stock at a consistent rate, whether or not those distributions contain an element of long-term capital gain.

7. Applicants assert that the application of rule 19b-1 to a Plan actually could have an undesirable influence on portfolio management decisions. Applicants state that, in the absence of an exemption from rule 19b-1, the implementation of a Plan imposes pressure on management (i) not to realize any net long-term capital gains until the point in the year that the fund can pay all of its remaining distributions in accordance with rule 19b-1, and (ii) not to realize any long-term capital gains during any particular year in excess of the amount of the aggregate pay-out for the year (since as a practical matter excess gains must be distributed and accordingly would not be available to satisfy pay-out requirements in following years), notwithstanding that purely investment considerations might

favor realization of long-term gains at different times or in different amounts. Applicants thus assert that the limitation on the number of capital gain distributions that a fund may make with respect to any one year imposed by rule 19b-1, may prevent the efficient operation of a Plan whenever that fund's realized net long-term capital gains in any year exceed the total of the periodic distributions that may include such capital gains under the rule.

8. In addition, Applicants assert that rule 19b-1 may cause fixed regular periodic distributions under a Plan to be funded with returns of capital² (to the extent net investment income and realized short-term capital gains are insufficient to fund the distribution), even though realized net long-term capital gains otherwise could be available. To distribute all of a fund's long-term capital gains within the limits in rule 19b-1, a fund may be required to make total distributions in excess of the annual amount called for by its Plan, or to retain and pay taxes on the excess amount. Applicants thus assert that the requested order would minimize these effects of rule 19b-1 by enabling the Funds to realize long-term capital gains as often as investment considerations dictate without fear of violating rule 19b-1.

9. Applicants state that *Revenue Ruling 89-81* under the Code requires that a fund that has both common stock and preferred stock outstanding designate the types of income, e.g., investment income and capital gains, in the same proportion as the total distributions distributed to each class for the tax year. To satisfy the proportionate designation requirements of *Revenue Ruling 89-81*, whenever a fund has realized a long-term capital gain with respect to a given tax year, the fund must designate the required proportionate share of such capital gain to be included in common and preferred stock dividends. Applicants state that although rule 19b-1 allows a fund some flexibility with respect to the frequency of capital gains distributions, a fund might use all of the exceptions available under the rule for a tax year and still need to distribute additional capital gains allocated to the preferred stock to comply with *Revenue Ruling 89-81*.

10. Applicants assert that the potential abuses addressed by section 19(b) and rule 19b-1 do not arise with respect to preferred stock issued by a closed-end fund. Applicants assert that such distributions are fixed or

² Returns of capital as used in the application means return of capital for financial accounting purposes and not for tax accounting purposes.

determined in periodic auctions by reference to short-term interest rates rather than by reference to performance of the issuer and *Revenue Ruling 89-81* determines the proportion of such distributions that are comprised of long-term capital gains.

11. Applicants also submit that the "selling the dividend" concern is not applicable to preferred stock, which entitles a holder to no more than a periodic dividend at a fixed rate or the rate determined by the market, and, like a debt security, is priced based upon its liquidation value, credit quality, and frequency of payment. Applicants state that investors buy preferred shares for the purpose of receiving payments at the frequency bargained for, and do not expect the liquidation value of their shares to change.

12. Applicants request an order under section 6(c) granting an exemption from the provisions of section 19(b) and rule 19b-1 to permit each Fund's common stock to distribute periodic capital gains dividends (as defined in section 852(b)(3)(C) of the Code) as often as monthly in any one taxable year in respect of its common stock and as often as specified by or determined in accordance with the terms thereof in respect of its preferred shares.³

Applicants' Conditions

Applicants agree that, with respect to each Fund seeking to rely on the order, the order will be subject to the following conditions:

I. Compliance Review and Reporting.

The Fund's chief compliance officer will: (a) Report to the Fund's Board, no less frequently than once every three months or at the next regularly scheduled quarterly Board meeting, whether (i) the Fund and the Adviser have complied with the conditions in the requested order, and (ii) a Material Compliance Matter, as defined in rule 38a-1(e)(2), has occurred with respect to compliance with such conditions; and (b) review the adequacy of the policies and procedures adopted by the Fund no less frequently than annually.

II. Disclosures to Fund Stockholders:

A. Each Notice to the holders of the fund's common stock, in addition to the information required by section 19(a) and rule 19a-1:

1. Will provide, in a tabular or graphical format:

(a) The amount of the distribution, on a per common share basis, together with the amounts of such distribution amount, on a per common share basis and as a percentage of such distribution amount, from estimated: (A) Net investment income; (B) net realized short-term capital gains; (C) net realized long-term capital gains; and (D) return of capital or other capital source;

(b) the fiscal year-to-date cumulative amount of distributions, on a per common share basis, together with the amounts of such cumulative amount, on a per common share basis and as a percentage of such cumulative amount of distributions, from estimated: (A) Net investment income; (B) net realized short-term capital gains; (C) net realized long-term capital gains; and (D) return of capital or other capital source;

(c) the average annual total return in relation to the change in NAV for the 5-year period (or, if the Fund's history of operations is less than five years, the time period commencing immediately following the Fund's first public offering) ending on the last day of the month prior to the most recent distribution record date compared to the current fiscal period's annualized distribution rate expressed as a percentage of NAV as of the last day of the month prior to the most recent distribution record date; and

(d) the cumulative total return in relation to the change in NAV from the last completed fiscal year to the last day of the month prior to the most recent distribution record date compared to the fiscal year-to-date cumulative distribution rate expressed as a percentage of NAV as of the last day of the month prior to the most recent distribution record date.

Such disclosure shall be made in a type size at least as large as and as prominent as the estimate of the sources of the current distribution; and

2. will include the following disclosure:

(a) "You should not draw any conclusions about the Fund's investment performance from the amount of this distribution or from the terms of the Fund's Plan";

(b) "The Fund estimates that it has distributed more than its income and net realized capital gains; therefore, a portion of your distribution may be a return of capital. A return of capital may occur for example, when some or all of the money that you invested in the Fund is paid back to you. A return of capital distribution does not necessarily reflect the Fund's investment performance and should not be confused with 'yield' or 'income'"; and

(c) "The amounts and sources of distributions reported in this Notice are only estimates and are not being provided for tax reporting purposes. The actual amounts and sources of the amounts for [accounting and] tax reporting purposes will depend upon the Fund's investment experience during the remainder of its fiscal year and may be subject to changes based on tax regulations. The Fund will send you a Form 1099-DIV for the calendar year that will tell you how to report these distributions for federal income tax purposes."

Such disclosure shall be made in a type size at least as large as and as prominent as any other information in the Notice and placed on the same page in close proximity to the amount and the sources of the distribution.

B. On the inside front cover of each report to stockholders under rule 30e-1 under the Act, the Fund will:

1. Describe the terms of the Plan (including the fixed amount or fixed percentage of the distributions and the frequency of the distributions);

2. include the disclosure required by condition II.A.2.a above;

3. state, if applicable, that the Plan provides that the Board may amend or terminate the Plan at any time without prior notice to Fund stockholders; and

4. describe any reasonably foreseeable circumstances that might cause the Fund to terminate the Plan and any reasonably foreseeable consequences of such termination.

C. Each report provided to stockholders under rule 30e-1 and each prospectus filed with the Commission on Form N-2 under the Act, will provide the Fund's total return in relation to changes in NAV in the financial highlights table and in any discussion about the Fund's total return.

III. Disclosure to Stockholders, Prospective Stockholders and Third Parties:

A. The Fund will include the information contained in the relevant Notice, including the disclosure required by condition II.A.2 above, in any written communication (other than a Form 1099) about the Plan or distributions under the Plan by the Fund, or agents that the Fund has authorized to make such communication on the Fund's behalf, to any Fund common stockholder, prospective common stockholder or third-party information provider;

B. The Fund will issue, contemporaneously with the issuance of any Notice, a press release containing the information in the Notice and will file with the Commission the

³ Applicants state that a future fund that relies on the requested order will satisfy each of the representations in the application except that such representations will be made in respect of actions by the Board of such future fund and will be made at a future time.

information contained in such Notice, including the disclosure required by condition II.A.2 above, as an exhibit to its next filed Form N-CSR; and

C. The Fund will post prominently a statement on its (or its adviser's) Web site containing the information in each Notice, including the disclosure required by condition II.A.2 above, and will maintain such information on such Web site for at least 24 months.

IV. Delivery of 19(a) Notices to Beneficial Owners:

If a broker, dealer, bank or other person ("financial intermediary") holds common stock issued by the Fund in nominee name, or otherwise, on behalf of a beneficial owner, the Fund: (a) Will request that the financial intermediary, or its agent, forward the Notice to all beneficial owners of the Fund's shares held through such financial intermediary; (b) will provide, in a timely manner, to the financial intermediary, or its agent, enough copies of the Notice assembled in the form and at the place that the financial intermediary, or its agent, reasonably requests to facilitate the financial intermediary's sending of the Notice to each beneficial owner of the Fund's stock; and (c) upon the request of any financial intermediary, or its agent, that receives copies of the Notice, will pay the financial intermediary, or its agent, the reasonable expenses of sending the Notice to such beneficial owners.

V. Additional Board Determinations for Funds Whose Stock Trades at a Premium:

If:

A. The Fund's common stock has traded on the exchange on which it primarily trades at the time in question at an average premium to NAV equal to or greater than 10%, as determined on the basis of the average of the discount or premium to NAV of the Fund's common stock as of the close of each trading day over a 12-week rolling period (each such 12-week rolling period ending on the last trading day of each week); and

B. The Fund's annualized distribution rate for such 12-week rolling period, expressed as a percentage of NAV as of the ending date of such 12-week rolling period, is greater than the Fund's average annual total return in relation to the change in NAV over the 2-year period ending on the last day of such 12-week rolling period; then:

1. At the earlier of the next regularly scheduled meeting or within four months of the last day of such 12-week rolling period, the Board, including a majority of the Independent Trustees:

(a) Will request and evaluate, and the Adviser will furnish, such information as may be reasonably necessary to make an informed determination of whether the Plan should be continued or continued after amendment;

(b) will determine whether continuation, or continuation after amendment, of the Plan is consistent with the Fund's investment objective(s) and policies and in the best interests of the Fund and its stockholders, after considering the information in condition V.B.1.a above; including, without limitation:

(1) Whether the Plan is accomplishing its purpose(s);

(2) the reasonably foreseeable effects of the Plan on the Fund's long-term total return in relation to the market price and NAV of the Fund's common stock; and

(3) the Fund's current distribution rate, as described in condition V.B above, compared to with the Fund's average annual total return over the 2-year period, as described in condition V.B, or such longer period as the Board deems appropriate; and

(c) based upon that determination, will approve or disapprove the continuation, or continuation after amendment, of the Plan; and

2. The Board will record the information considered by it and the basis for its approval or disapproval of the continuation, or continuation after amendment, of the Plan in its meeting minutes, which must be made and preserved for a period of not less than six years from the date of such meeting, the first two years in an easily accessible place.

VI. Public Offerings:

The Fund will not make a public offering of the Fund's common stock other than:

A. A rights offering below NAV to holders of the Fund's common stock;

B. an offering in connection with a dividend reinvestment plan, merger, consolidation, acquisition, spin-off or reorganization of the Fund; or

C. an offering other than an offering described in conditions VI.A and VI.B above, unless, with respect to such other offering:

1. the Fund's average annual distribution rate for the six months ending on the last day of the month ended immediately prior to the most recent distribution record date,⁴ expressed as a percentage of NAV per share as of such date, is no more than

1 percentage point greater than the Fund's average annual total return for the 5-year period ending on such date;⁵ and

2. the transmittal letter accompanying any registration statement filed with the Commission in connection with such offering discloses that the Fund has received an order under section 19(b) to permit it to make periodic distributions of long-term capital gains with respect to its common stock as frequently as twelve times each year, and as frequently as distributions are specified in accordance with the terms of any outstanding preferred stock that such Fund may issue.

VII. Amendments to Rule 19b-1:

The requested relief will expire on the effective date of any amendment to rule 19b-1 that provides relief permitting certain closed-end investment companies to make periodic distributions of long-term capital gains with respect to their outstanding common stock as frequently as twelve times each year.

For the Commission, by the Division of Investment Management, under delegated authority.

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24242 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release Nos. 33-8975; 34-58747; File No. 4-573]

SEC Study of Mark to Market Accounting

AGENCY: Securities and Exchange Commission.

ACTION: Request for comment.

SUMMARY: The Securities and Exchange Commission is requesting public comment related to the study to be conducted by the Commission under the Emergency Economic Stabilization Act of 2008 of "mark-to-market" accounting applicable to financial institutions, including depository institutions.

DATES: Comments should be received on or before November 13, 2008.

ADDRESSES: Comments may be submitted by any of the following methods:

⁴ If the fund has been in operation fewer than two years, the measured period will begin immediately following the fund's first public offering.

⁵ If the Fund has been in operation fewer than five years, the measured period will begin immediately following the Fund's first public offering.

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/other.shtml>); or
- Send an e-mail message to rule-comments@sec.gov. Please include File Number 4-573 on the subject line.

Paper Comments

- Send paper comments in triplicate to Florence E. Harmon, Acting Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File No. 4-573. This file number should be included on the subject line if e-mail is used. To help us process and review your comments more efficiently, please use only one method. The Commission will post all comments on its Internet Web site (<http://www.sec.gov/rules/other.shtml>). Comments are also available for public inspection and copying in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. All comments received will be posted without change; we do not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

FOR FURTHER INFORMATION CONTACT: Jenifer Minke-Girard, Senior Associate Chief Accountant, at (202) 551-5300, Office of the Chief Accountant, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-6561.

SUPPLEMENTARY INFORMATION: In connection with the study to be conducted by the Securities and Exchange Commission ("Commission") under the Emergency Economic Stabilization Act of 2008 (the "Act")¹ of "mark-to-market" accounting applicable to financial institutions, including depository institutions, the Commission welcomes public comments on the issues, point-of-view, research and opinions that the Commission's staff should consider in conducting the study.

The Act, which was enacted and signed by the President on October 3, 2008, requires the Commission to conduct a study of "mark-to-market" accounting and submit a report to Congress with the findings and determinations within 90 days. Specifically Section 133 of the Act provides as follows:

Study on Mark-to-Market Accounting

(a) **STUDY.**—The Securities and Exchange Commission, in consultation with the Board [of Governors of the Federal Reserve System] and the Secretary [of the Treasury], shall conduct a study on mark-to-market accounting standards as provided in Statement Number 157 of the Financial Accounting Standards Board, as such standards are applicable to financial institutions, including depository institutions. Such a study shall consider at a minimum—

- (1) The effects of such accounting standards on a financial institution's balance sheet;
- (2) The impacts of such accounting on bank failures in 2008;
- (3) The impact of such standards on the quality of financial information available to investors;
- (4) The process used by the Financial Accounting Standards Board in developing accounting standards;
- (5) The advisability and feasibility of modifications to such standards; and
- (6) Alternative accounting standards to those provided in such Statement Number 157.

(b) **REPORT.**—The Securities and Exchange Commission shall submit to Congress a report of such study before the end of the 90-day period beginning on the date of the enactment of this Act containing the findings and determinations of the Commission, including such administrative and legislative recommendations as the Commission determines appropriate.

All interested parties are invited to submit their views, in writing, on any or all of the subjects identified, whether subjects in addition to those identified should be included in the study for any reason or on any other matter relating to the current use of fair value accounting (including mark-to-market) in the U.S. financial reporting system that should be considered.

Dated: October 8, 2008.

By the Commission.

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24245 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-58739; File No. SR-FINRA-2008-005]

**Self-Regulatory Organizations:
Financial Industry Regulatory
Authority, Inc.; Notice of Filing of
Amendment No. 1 and Order Granting
Accelerated Approval of Proposed
Rule Change as Modified by
Amendment No. 1 Thereto To Adopt
Rule 12905 of the Code of Arbitration
Procedure for Customer Disputes and
Rule 13905 of the Code of Arbitration
Procedure for Industry Disputes To
Permit Submissions Under Limited
Circumstances to Arbitrators After a
Case Has Closed**

October 6, 2008.

I. Introduction

On February 7, 2008, the Financial Industry Regulatory Authority, Inc. ("FINRA") (f/k/a/ National Association of Securities Dealers, Inc. ("NASD")) filed with the Securities and Exchange Commission ("Commission") pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")¹ and Rule 19b-4 thereunder,² a proposed rule change to amend the NASD Code of Arbitration Procedure for Customer Disputes ("Customer Code") and the NASD Code of Arbitration Procedure for Industry Disputes ("Industry Code") to permit submissions to arbitrators after a case has closed only under limited, enumerated circumstances. The proposed rule change was published for comment in the **Federal Register** on March 18, 2008.³ The Commission received 13 comment letters in response to the proposed rule change.⁴ On June

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ See Securities Exchange Act Release No. 34-57525 (March 18, 2008); 73 FR 15815-15817 (March 25, 2008) (notice).

⁴ The following submitted comment letters: Steven B. Caruso, Maddox Hargett & Caruso, P.C. (March 21, 2008) ("Caruso letter"); Jeff Sonn, Sonn, Erez, PLC (March 26, 2008) ("Sonn letter"); Seth E. Lipner, Professor of Law, Zicklin School of Business, Baruch College, CUNY, Member, Deutsch Lipner (March 28, 2008) ("Lipner letter"); Steve Buchwalter, Attorney (March 29, 2008 and May 15, 2008) ("Buchwalter letters"); William A. Jacobson, Associate Clinical Professor, Director, Cornell Securities Law Clinic, Cornell Law School (March 31, 2008) ("Cornell letter"); Scott R. Shewan, Born, Pape & Shewan, LLP (April 1, 2008) ("Shewan letter"); Barry D. Estell, Attorney (April 9, 2008) ("Estell letter"); Timothy Canning, Canning & Associates (April 10, 2008); Joseph Fogel, Fogel Associates (April 11, 2008) ("Fogel letter"); David P. Neuman, Stoltmann Law Offices, P.C. (April 14, 2008) ("Neuman letter"); Debra B. Hayes, Attorney (April 15, 2008) ("Hayes letter"); Karen Tyler, President, North American Securities Administrators Association ("NASAA"), Inc., and North Dakota Securities Commissioner (April 17,

¹ H.R. 1424.

19, 2008, FINRA responded to the comment letters⁵ and submitted Amendment 1 to the proposed rule change. This order provides notice of the proposed rule change, as modified by Amendment No. 1, and approves the proposed rule change as amended on an accelerated basis.

II. Description of the Proposed Rule Change

FINRA initially proposed to adopt Rule 12905 of the Customer Code and Rule 13905 of the Industry Code to permit submissions to arbitrators after a case has closed only under the following circumstances: (1) As ordered by a court; (2) at the request of any party within 30 days of service of an award or notice that a matter has been closed, for ministerial matters; or (3) if all parties agree and submit documents within 30 days of service of an award or notice that a matter has been closed.

After reviewing the comments, FINRA amended its proposed rule change on June 19, 2008, so that submissions to arbitrators after a case has closed would only be permitted under the following circumstances: (1) As ordered by a court;⁶ (2) at the request of any party within 10 days of service of an award or notice that a matter has been closed, for typographical or computational errors or mistakes in the description of any person or property referred to in the award; or (3) if all parties agree and submit documents within 10 days of service of an award or notice that a matter has been closed.⁷ If the Director determines submissions made pursuant to circumstances (2) and (3) comply with the grounds for submission, the proposed rules would require the Director to forward the submissions, along with any responses from the parties, to the arbitrators. The arbitrators have the discretion under the proposed rules to decline the requests made pursuant to circumstances (2) and (3). Under the proposed rules, the requests would be considered denied unless the

arbitrators rule within 10 days after the Director forwards the documents. The proposed rules would not allow any requests to extend the time period for the payment of any award pursuant to Rule 12904 for customer disputes or to Rule 13904 for industry disputes.

III. Summary of Comments Received and FINRA Response

As noted above, the Commission received 13 comment letters on the proposed rules.⁸ Twelve commenters opposed the proposal;⁹ one commenter supported the proposal but urged FINRA to make clear that the time period to pay an award would not be extended by the proposed rule change.¹⁰ A number of commenters argued that the term “ministerial matters” lacked specificity and requested further clarification.¹¹ Others predicted that permitting unilateral motions relating to ministerial matters would increase litigation costs for parties and that the rules would delay award payments.¹² Several commenters maintained that the rules would allow expungement to be accomplished without any outside oversight.¹³ Other commenters suggested that the rule change should not allow a member or associated person to extend the 30-day period for payment of award.¹⁴ A number of commenters stated that the proposed rule conflicts with the policy of finality in arbitration.¹⁵ Several commenters argued that it is against the public interest to allow a party to raise an issue it did not raise during the hearing.¹⁶

In response to the comments, on June 19, 2008, FINRA filed Amendment No. 1 to the proposed rule change to address potential ambiguities in the rules and further limit the circumstances under which a party may make a request under the rules. In particular, FINRA proposed to shorten the time limit for requests made by the parties from 30 to 10 days to expedite requests under the rules and to avoid delays in award payments. FINRA also proposed to clarify that such a request would not extend the time period for paying an award. In addition, FINRA proposed to clarify the scope of the term “ministerial matters”

by limiting the grounds for unilateral requests to typographical or computational errors, such as an addition mistake when computing forum fees, or to mistakes in the description of a person or property, such as an incorrect reference to the title of an account in an award.

Several commenters questioned whether there is sufficient need for the proposed rules given what they view as the limited number of requests to permit submissions to arbitrators after a case has closed.¹⁷ FINRA responded that it receives an estimated 150 or more such requests per year, which is a significant number in FINRA's view.¹⁸ FINRA also stated that it believes the proposal would add transparency to the forum's process for considering such requests.¹⁹

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing Amendment, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-FINRA-2008-005 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-FINRA-2008-005. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, Amendment No. 1, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be

2008) (“NASAA letter”); and Laurence S. Schultz, President, Public Investors Arbitration Bar Association (“PIABA”) (April 18, 2008) (“PIABA letter”).

⁵ See Letter from Margo A. Hassan, Counsel, FINRA, to Florence E. Harmon, Deputy Secretary, Commission (June 19, 2008).

⁶ The Director, as defined in Rule 12100 of the Customer Code and Rule 13100 of the Industry Code, will forward documents submitted pursuant to this circumstance, along with any responses from parties, to the arbitrators.

⁷ Unilateral requests to reopen closed cases for expungement relief would not be permitted (Conversation between Margo A. Hassan, Counsel, FINRA and Lourdes Gonzalez, Assistant Chief Counsel—Sales Practices, Office of Chief Counsel of the Division of Trading and Markets, U.S. Securities and Exchange Commission on July 10, 2008).

⁸ See *supra*, note 4.

⁹ See Caruso, Sonn, Buchwalter (March 29, 2008 and May 15, 2008), Cornell, Shewan, Estell, Fogel, Neuman, Hayes, NASAA and PIABA letters.

¹⁰ See Lipner letter.

¹¹ See, e.g., Caruso, Sonn, Cornell, Shewan, Estell, Hayes, NASAA and PIABA letters.

¹² See, e.g., Buchwalter, Cornell, Shewan, Estell, Fogel, Neuman, Hayes and PIABA letters.

¹³ See, e.g., Estell, NASAA and PIABA letters.

¹⁴ See, e.g., Lipner and Cornell letters.

¹⁵ See, e.g., Buchwalter, Cornell, Estell, Hayes, Shewan, NASAA and PIABA letters.

¹⁶ See, e.g., Cornell, Estell and PIABA letters.

¹⁷ See, e.g., Cornell, Shewan, NASAA and PIABA letters.

¹⁸ See *supra*, note 5.

¹⁹ *Id.*

available for inspection and copying in the Commission's Public Reference Room, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of FINRA. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-FINRA-2008-005 and should be submitted on or before November 4, 2008.

V. Discussion and Findings

After careful review, the Commission finds that the proposed rule change, as amended, is consistent with the requirements of the Act, and the rules and regulations thereunder that are applicable to a national securities association.²⁰ In particular, the Commission finds that the proposed rule change, as amended, is consistent with the provisions of Section 15A(b)(6) of the Act, which provides that the rules of a national securities association should be designed "in general, to protect investors and the public interest[.]" The Commission concludes that the proposed rule change would strictly limit the circumstances under which a party would be permitted to submit documents to arbitrators in closed cases, add transparency to the process for considering such requests and support a fair arbitration process. The Commission finds that it is in the public interest to approve the proposed rule change as soon as possible to expedite its implementation. Accordingly, the Commission believes good cause exists, consistent with Sections 6(b)(5) and 19(b)(2) of the Act to approve on an accelerated basis the proposed rule change as modified by Amendment No. 1.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,²¹ that the proposed rule change (SR-FINRA-2008-005), as modified by Amendment No. 1 thereto, be, and hereby is, approved on an accelerated basis.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²²

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24241 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-58744; File No. SR-ISE-2008-76]

Self-Regulatory Organizations; International Securities Exchange, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Relating to Fee Changes

October 7, 2008.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on October 3, 2008, the International Securities Exchange, LLC ("ISE" or "Exchange") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested parties.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The ISE is proposing to amend its Schedule of Fees to establish fees for transactions in options on 5 Premium Products.³ The text of the proposed rule change is available at the Exchange.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange is proposing to amend its Schedule of Fees to establish fees for transactions in options on the iShares Dow Jones U.S. Oil Equipment & Services Index Fund ("IEZ"),⁴ the Vanguard® Information Technology ETF ("VGT"),⁵ the Vanguard® Mid-Cap ETF ("VO"),⁶ the SPDR® S&P Biotech ETF

⁴ iShares® is a registered trademark of Barclays Global Investors, N.A. ("BGI"), a wholly owned subsidiary of Barclays Bank PLC. "Dow Jones" and "Dow Jones U.S. Oil Equipment & Services Index" are trademarks and service marks of Dow Jones & Company, Inc. ("Dow Jones") and have been licensed for use for certain purposes by BGI. All other trademarks and service marks are the property of their respective owners. The iShares Dow Jones U.S. Oil Equipment & Services Index Fund ("IEZ") is not sponsored, endorsed, or promoted by Dow Jones. BGI and Dow Jones have not licensed or authorized ISE to (i) engage in the creation, listing, provision of a market for trading, marketing, and promotion of options on IEZ or (ii) to use and refer to any of their trademarks or service marks in connection with the listing, provision of a market for trading, marketing, and promotion of options on IEZ or with making disclosures concerning options on IEZ under any applicable federal or state laws, rules or regulations. BGI and Dow Jones do not sponsor, endorse, or promote such activity by ISE, and are not affiliated in any manner with ISE.

⁵ Vanguard, Vanguard ETFs and Vanguard ETF are trademarks of The Vanguard Group, Inc. ("Vanguard"). All other marks are the exclusive property of their respective owners. The Vanguard® Information Technology ETF ("VGT") tracks the Morgan Stanley Capital International® (MSCI®) U.S. Investable Market Information Technology Index. MSCI does not sponsor, endorse, or promote VGT and makes no representation regarding the advisability of investing in VGT. Vanguard and MSCI have not licensed or authorized ISE to (i) engage in the creation, listing, provision of a market for trading, marketing, and promotion of options on VGT or (ii) to use and refer to any of their trademarks or service marks in connection with the listing, provision of a market for trading, marketing, and promotion of options on VGT or with making disclosures concerning options on VGT under any applicable federal or state laws, rules or regulations. Vanguard and MSCI do not sponsor, endorse, or promote such activity by ISE, and are not affiliated in any manner with ISE.

⁶ Vanguard, Vanguard ETFs and Vanguard ETF are trademarks of The Vanguard Group, Inc. ("Vanguard"). All other marks are the exclusive property of their respective owners. The Vanguard® Mid-Cap ETF ("VO") tracks the Morgan Stanley Capital International® (MSCI®) U.S. Mid Cap 450 Index. MSCI does not sponsor, endorse, or promote VO and makes no representation regarding the advisability of investing in VO. Vanguard and MSCI have not licensed or authorized ISE to (i) engage in the creation, listing, provision of a market for trading, marketing, and promotion of options on VO or (ii) to use and refer to any of their trademarks or service marks in connection with the listing, provision of a market for trading, marketing, and promotion of options on VO or with making disclosures concerning options on VO under any applicable federal or state laws, rules or regulations. Vanguard and MSCI do not sponsor, endorse, or promote such activity by ISE, and are not affiliated in any manner with ISE.

²⁰ In approving this proposal, the Commission has considered the proposed rule's impact on efficiency, competition and capital formation. See 15 U.S.C. 78c(f).

²¹ 15 U.S.C. 78s(b)(2).

²² 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ Premium Products is defined in the Schedule of Fees as the products enumerated therein.

("XBI"),⁷ and the SPDR® S&P Oil & Gas Equipment & Services ETF ("XES").⁸ The Exchange represents that IEZ, VGT, VO, XBI and XES are eligible for options trading because they constitute "Exchange-Traded Fund Shares," as defined by ISE Rule 502(h).

All of the applicable fees covered by this filing are identical to fees charged by the Exchange for all other Premium Products. Specifically, the Exchange is proposing to adopt an execution fee for all transactions in options on IEZ, VGT, VO, XBI and XES.⁹ The amount of the execution fee for products covered by this filing shall be \$0.18 per contract for all Public Customer Orders¹⁰ and Firm

Proprietary orders.¹¹ The amount of the execution fee for all ISE Market Maker transactions shall be equal to the execution fee currently charged by the Exchange for ISE Market Maker transactions in equity options.¹² Finally, the amount of the execution fee for all non-ISE Market Maker transactions shall be \$0.45 per contract.¹³ Further, since options on IEZ, VGT, VO, XBI and XES are multiply-listed, the Exchange's Payment for Order Flow fee shall apply to all these products. The Exchange believes the proposed rule change will further the Exchange's goal of introducing new products to the marketplace that are competitively priced.

Further, as a matter of housekeeping, the Exchange proposes to remove IXX from the list of Premium Products on its Schedule of fees.¹⁴ The Exchange also proposes to remove IXX and IXK¹⁵ from the Payment for Order Flow fee line item on its Schedule of Fees. Additionally, the Exchange recently adopted a sliding scale-based fee credit applicable to the Exchange's Electronic Access Members (SR-ISE-2008-71). The Exchange proposes to make a clarifying change to the rule text applicable to the sliding scale. Specifically, the Exchange proposes to add the word "Thereafter," at the beginning of the last bullet under the Firm Proprietary fee line item to clarify, as it was stated in the purpose section

of that filing, that the credit available to member firms under this bullet applies once member firms have achieved the criteria under the first three bullets.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6(b) of the Act,¹⁶ in general, and furthers the objectives of Section 6(b)(4),¹⁷ in particular, in that it is designed to provide for the equitable allocation of reasonable dues, fees, and other charges among its members and other persons using its facilities.

B. Self-Regulatory Organization's Statement on Burden on Competition

The proposed rule change does not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

The Exchange has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any unsolicited written comments from members or other interested parties.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act¹⁸ and subparagraph (f)(2) of Rule 19b-4¹⁹ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or

¹⁶ 15 U.S.C. 78f(b).

¹⁷ 15 U.S.C. 78f(b)(4).

¹⁸ 15 U.S.C. 78s(b)(3)(A).

¹⁹ 17 CFR 240.19b-4(f)(2).

⁷ "Standard & Poor's®," "S&P®," "S&P 500®," "Standard & Poor's 500®," "Standard & Poor's Depository Receipts®," "SPDR®," and "the S&P® Biotechnology Select Industry Index" are trademarks of The McGraw-Hill Companies, Inc. ("McGraw-Hill"), and have been licensed for use by State Street Bank and Trust ("State Street") in connection with the listing and trading of SPDR® S&P Biotech ETF ("XBI"). State Street and Standard & Poor's ("S&P"), a division of McGraw-Hill, do not sponsor, endorse or promote XBI and make no representation regarding the advisability of investing in XME. State Street, McGraw-Hill and S&P have not licensed or authorized ISE to (i) engage in the creation, listing, provision of a market for trading, marketing, and promotion of options on XBI or (ii) to use and refer to any of their trademarks or service marks in connection with the listing, provision of a market for trading, marketing, and promotion of options on XBI or with making disclosures concerning options on XBI under any applicable federal or state laws, rules or regulations. State Street, McGraw-Hill and S&P do not sponsor, endorse, or promote such activity by ISE and are not affiliated in any manner with ISE.

⁸ "Standard & Poor's®," "S&P®," "S&P 500®," "Standard & Poor's 500®," "Standard & Poor's Depository Receipts®," "SPDR®," and "the S&P® Oil & Gas Equipment & Services Select Industry Index" are trademarks of The McGraw-Hill Companies, Inc. ("McGraw-Hill"), and have been licensed for use by State Street Bank and Trust ("State Street") in connection with the listing and trading of SPDR® S&P Oil & Gas Equipment & Services ETF ("XES"). State Street and Standard & Poor's ("S&P"), a division of McGraw-Hill, do not sponsor, endorse or promote XES make no representation regarding the advisability of investing in XES. State Street, McGraw-Hill and S&P have not licensed or authorized ISE to (i) engage in the creation, listing, provision of a market for trading, marketing, and promotion of options on XES or (ii) to use and refer to any of their trademarks or service marks in connection with the listing, provision of a market for trading, marketing, and promotion of options on XES or with making disclosures concerning options on XES under any applicable federal or state laws, rules or regulations. State Street, McGraw-Hill and S&P do not sponsor, endorse, or promote such activity by ISE and are not affiliated in any manner with ISE.

⁹ These fees will be charged only to Exchange members. Under a pilot program that is set to expire on July 31, 2009, these fees will also be charged to Linkage Principal Orders ("Linkage P Orders") and Linkage Principal Acting as Agent Orders ("Linkage P/A Orders"). The amount of the execution fee charged by the Exchange for Linkage P Orders and Linkage P/A Orders is \$0.24 per contract side and \$0.15 per contract side, respectively. See Securities Exchange Act Release No. 58143 (July 11, 2008), 73 FR 41388 (July 18, 2008) (SR-ISE-2008-52).

¹⁰ Public Customer Order is defined in Exchange Rule 100(a)(39) as an order for the account of a

Public Customer. Public Customer is defined in Exchange Rule 100(a)(38) as a person or entity that is not a broker or dealer in securities.

¹¹ The execution fee for firm proprietary orders is \$0.20 per contract, effective October 1, 2008. See Securities Exchange Act Release No. 34-58671 [sic] (September 29, 2008), 73 FR 57722 (October 3, 2008) (SR-ISE-2008-71).

¹² The Exchange applies a sliding scale, between \$0.01 and \$0.18 per contract side, based on the number of contracts an ISE market maker trades in a month.

¹³ The amount of the execution fee for non-ISE Market Maker transactions executed in the Exchange's Facilitation and Solicitation Mechanisms is \$0.19 per contract.

¹⁴ This Premium Product was recently delisted and no longer trades on the Exchange. Thus, the Exchange proposes to remove it from its fee schedule. ISE filed SR-ISE-2008-75 on September 25, 2008 to, in part, delete IXX from its Schedule of Fees. However, in that filing the Exchange inadvertently failed to mark IXX as deleted text on its Schedule of Fees. ISE subsequently withdrew SR-ISE-2008-75 and is submitting the instant filing with the corrected rule text to replace that filing. The other fees covered by that filing, which took effect on September 25, remain unchanged.

¹⁵ The Exchange had previously filed to remove IXK from its Schedule of Fees when this product ceased trading on the Exchange. See Securities Exchange Act Release No. 57831 (May 16, 2008), 73 FR 30176 (May 23, 2008) (SR-ISE-2008-39). The Exchange inadvertently failed to remove IXK from the Payment for Order Flow fee line item in that filing and thus, proposes to do so with the instant filing.

- Send an e-mail to *rule-comments@sec.gov*. Please include File Number SR-ISE-2008-76 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington DC 20549-1090.

All submissions should refer to File Number SR-ISE-2008-76. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR-ISE-2008-76 and should be submitted on or before November 4, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.²⁰

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24237 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-58743; File No. SR-NYSE-2008-102]

Self-Regulatory Organizations; Notice of Filing and Immediate Effectiveness of Proposed Rule Change by New York Stock Exchange LLC Amending Rule 48 To Permit the Exchange To Declare an Extreme Market Volatility Condition and Suspend Certain NYSE Requirements Relating to the Closing of Securities at the Exchange

October 7, 2008.

Pursuant to Section 19(b)(1)¹ of the Securities Exchange Act of 1934 (the "Act")² and Rule 19b-4 thereunder,³ notice is hereby given that, on October 2, 2008, New York Stock Exchange LLC ("NYSE" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Rule 48 to permit the Exchange to declare an extreme market volatility condition and suspend certain NYSE requirements relating to the closing of securities at the Exchange. The text of the proposed rule change is available at NYSE, www.nyse.com, and the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange is proposing to amend NYSE Rule 48 to provide the Exchange with the ability to suspend certain requirements at the closing when extremely high market volatility could negatively affect the ability to ensure a fair and orderly close.

Based on what the markets have experienced in the past month, and in particular, at the close on September 29, 2008, the Exchange believes that in addition to the open, an extreme market volatility condition can also impact the close at the Exchange. In particular, the Exchange believes that in an extreme market volatility condition at the close, the Exchange should be able to permit orders to be entered after 4 p.m. for the purpose of offsetting an imbalance that may exist as of that time and to cancel or reduce a market-on-close or limit-on-close order that is a legitimate error and would cause significant price dislocation at the close.

NYSE Rule 48 Background

The Exchange adopted NYSE Rule 48 on December 5, 2007 in order to provide the Exchange with the ability to suspend the requirement to disseminate price indications and obtain Floor Official approval prior to the opening when extremely high market volatility could negatively impact the operation of the market by causing Floor-wide delays in the opening of securities on the Exchange.⁴

Under NYSE Rule 48, in the event of extremely high market volatility that would have a Floor-wide impact on the ability of specialists to arrange for the timely opening of trading at the Exchange under the normal rules, a qualified Exchange officer may declare an extreme market volatility condition. For purposes of the rule, a "qualified Exchange officer" means the Chief Executive Officer of NYSE Euronext, Inc. or his or her designee, or the Chief Executive Officer of NYSE Regulation, Inc., or his or her designee. While either may declare the extreme market volatility condition, each must make a reasonable effort to consult with the other prior to taking such action.

NYSE Rule 48 is intended to be invoked only in those situations where the potential for extreme market volatility would likely impair Floor-wide operations at the Exchange by

¹ 15 U.S.C. 78s(b)(1).

² 15 U.S.C. 78a.

³ 17 CFR 240.19b-4.

⁴ See SEC Release No. 34-56920 (Dec. 6, 2007) (SR-NYSE-2007-111).

²⁰ 17 CFR 200.30-3(a)(12).

impeding the fair and orderly opening of securities. Accordingly, the rule sets forth a number of factors that the qualified Exchange officer would have to consider before declaring such a condition, including: volatility during the previous day's trading session; trading in foreign markets before the open; substantial activity in the futures market before the open; the volume of pre-opening indications of interest; evidence of pre-opening significant order imbalances across the market; government announcements; news and corporate events; and any such other market conditions that could impact Floor-wide trading conditions.

Once the qualified Exchange officer has reviewed such factors and determined that an extreme market volatility condition exists, the qualified Exchange officer must make reasonable efforts to consult with the Commission staff before making such a declaration. The qualified Exchange officer must also document the basis for making such a declaration. If the qualified Exchange officer is unable to reach the Commission staff before the opening, he or she may declare such a condition, but must, as promptly as practicable in the circumstances, inform the Commission staff of such declaration, and the basis for making such declaration.

Because the declaration of an extreme market volatility condition concerns the opening of securities at the Exchange, the rule further provides that such condition must be declared before the scheduled opening of securities at the Exchange. Moreover, such declaration would be in effect only for the opening of that trading session (or reopenings during the same trading day following the imposition of a mandatory halt pursuant to NYSE Rule 80B). Should market conditions that led to the declaration continue on subsequent days, the Exchange would have to review on a day-by-day basis the factors necessitating such a declaration and on each day make a reasonable effort to consult with the Commission staff as described above.

The Exchange notes that even when the dissemination and Floor Official (including Senior Floor Official and above) approval requirements are suspended, specialists *remain* responsible for the fair and orderly opening of securities. Exchange rules already provide that when Floor Official approval is sought for certain actions, the specialist remains ultimately responsible for arranging the opening of securities at the Exchange. This obligation remains unchanged. Even in the absence of price indications and a Floor Official's independent, impartial

review of the opening, specialists are still charged with ensuring that an opening price reflects market conditions and all participants have had a reasonable opportunity to participate.

The Exchange notes also that when Rule 48 is invoked, it does not affect situations where the opening of a security was delayed for reasons unrelated to extreme market volatility, such as where there is material news pending that justifies a regulatory halt under NYSE Rule 123D. In such cases, notwithstanding the invocation of Rule 48, the specialist in the affected security is expected to follow regular procedures for opening the security (that is, as if Rule 48 had not been invoked).

Proposed Amendments to Rule 48

Background

Pursuant to NYSE Rule 52, dealings on the Exchange are limited to the hours during which the Exchange is open for business, *i.e.*, 9:30 a.m. to 4 p.m. Except for certain pre-opening submission of orders, a member or member organization may not make bids or offers outside of those hours, and cannot enter orders after 4 p.m. (or earlier, in the event of an earlier scheduled close).

In the event a security has an imbalance of market-on-close ("MOC") or limit-on-close ("LOC") orders or when the closing price would elect a significant volume of stop orders, there may be little time to attract offsetting orders before 4 p.m. For example, a member, member organization, or customer may be willing to offset the imbalance, but be unable to enter an order before 4 p.m. Under current Exchange rules, specialists are enabled to represent such legitimate market interest that was willing to participate in the close, but could not enter a timely order. When a specialist has included another member's or member organization's interest in offsetting the imbalance when setting a closing price, NYSE Rule 902(a)(ii)(B) permits the specialist and such member or member organization to enter a coupled order into Crossing Session 1. Pursuant to Rule 903(d)(ii), the specialist must obtain Floor Official approval in order to enter a coupled order pursuant to that rule. Such procedure essentially permits the specialist to represent the member's or member organization's interest on a riskless principal basis.

NYSE Rule 123C(1) and (2) govern the entry of MOC and LOC orders at the Exchange. MOC and LOC orders must be entered by 3:40 p.m., unless entered to offset a published imbalance. Between 3:40 p.m. and 3:50 p.m., an MOC or LOC order cannot be cancelled

or reduced, except in the case of a legitimate error. After 3:50 p.m., an MOC or LOC order cannot be cancelled for any reason, including in the case of a legitimate error.

Suspending Certain Rules During an Extreme Market Volatility Condition at the Close

On September 29, 2008, the U.S. markets experienced the largest single point drop in the history of the Dow Jones Industrial Average ("DJIA")—777 points. That drop capped a month of volatility and significant changes to the financial marketplace, including the federal takeovers of Fannie Mae, Freddie Mac, American International Group, Inc., and Washington Mutual, the bankruptcy of Lehman Brothers, Inc., the acquisition of Merrill Lynch by Bank of America, and the sale of Wachovia's banking business to Citigroup.

Rule 48 has served as an invaluable tool for the Exchange to ensure a fair and orderly open in these times of extreme market volatility. During the month of September, the Exchange invoked Rule 48 nine times. This, in contrast to the four times that the Exchange invoked Rule 48 in the prior nine-month period, since it was adopted. Given the events of September 29, 2008, which included market-wide sell imbalances at the close, the Exchange believes that it should have the ability to declare an extreme market volatility condition at the close as well so that the Exchange can suspend certain rules to ensure a fair and orderly close.

The Exchange therefore proposes to amend Rule 48 to include the close of trading as a time when a qualified Exchange officer would be permitted to declare an extreme market volatility condition. In such event, the Exchange proposes temporarily suspending NYSE Rules 52 (Hours of Operation) and 123C(1) and (2) (Market on the Close Policy and Expiration Policy), provided that certain requirements are met. The Exchange also proposes to amend Rule 48 to clarify that the existing rule covers not just openings of trading, but also reopening of trading following a market-wide halt of securities at the Exchange.

To enable a qualified Exchange officer to declare a Rule 48 condition at the close, the Exchange proposes amending Rule 48(c) to include that a qualified Exchange officer may consider the volatility during that day's trading session and evidence of significant order imbalances across the market at the close for purposes of determining whether to declare an extreme market volatility condition at the close. The

Exchange also proposes that an extreme market volatility condition at the close is a separate event and must be considered in light of the facts and circumstances leading to the close. A Rule 48 condition at the opening would not extend to the close; as proposed, a qualified Exchange officer would need to make an independent determination to invoke Rule 48 at the close regardless of whether Rule 48 was invoked at the open.

To ensure a fair and orderly close in an extreme market volatility condition, the Exchange proposes to temporarily suspend Rule 52 so that interest can be solicited and entered into Exchange systems to offset imbalances after the scheduled close of trading. As noted above, while interest that has not been entered by 4 p.m. can be included to offset imbalances under Exchange rules, the process for including such interest in the close requires a specialist to represent the interest and then enter a coupled order in Crossing Session I with the member or member organization who was willing to include such interest in the close. Because of the need for Floor Official approval and the fact that such orders are entered manually, processing Rule 902(a)(ii)(B) coupled orders, particularly when there are multiple coupled orders per stock, can take time.

The Exchange therefore proposes suspending Rule 52 for the sole purpose of bypassing the Rule 902 process in times of extreme market volatility. As proposed, during an extreme market volatility condition, interest may be solicited—including interest that may not have been present prior to 4 p.m.—to offset any imbalance that may exist as of 4 p.m. (or earlier, in the case of an earlier scheduled close). If offsetting interest is received in response to such solicitation, rather than have the specialist represent such offsetting interest in the close, as proposed, such interest could be entered directly into Exchange systems on behalf of the member or member organization representing such interest. Because Exchange systems do not allow for the electronic entry of orders after 4 p.m., as proposed, such interest must be represented manually by a Floor broker in the closing auction process and entered into Exchange systems by the specialist by no later than 4:30 p.m. The Exchange further proposes that the entry of any orders after 4 p.m. pursuant to the proposed rule must be under the supervision and approval of a Floor Governor.

By permitting such offsetting interest to be entered directly into Exchange systems, the specialist will be better

able to manage the order flow that may be entered to offset the imbalance, particularly if such offsetting order flow is at multiple limit prices. It will also enable a better audit trail of whose interest participated in the close. To ensure a complete audit trail, as proposed, any offsetting interest entered after 4 p.m. during an extreme market volatility condition must also be entered into Front End Systemic Capture database (“FESC”), as required by NYSE Rule 123. Because such interest may not have been known until after 4 p.m., as proposed, a Floor broker may represent such offsetting interest after 4 p.m. without first entering the details of the order into a FESC, as required by NYSE Rule 123, so long as such orders are entered into FESC on an “as of” basis immediately following execution of the order.

The Exchange also proposes providing the ability to temporarily suspend the NYSE Rule 123C(1) and (2) requirements that MOC and LOC orders that are legitimate errors cannot be cancelled or reduced after 3:50 p.m. during an extreme market volatility condition at the close. As proposed, only an erroneous MOC or LOC that would cause significant price dislocation in the close could be considered for cancellation. In other words, an MOC or LOC order that is a legitimate error that would have no impact on the closing price could not take advantage of the proposed temporary suspension, even in an extreme market volatility condition. If it is determined that such an MOC/LOC legitimate error would dislocate the close, such order can be cancelled or reduced at any time up until that particular security has closed. To further ensure that the ability to cancel an MOC or LOC order after 3:50 is not abused, as proposed, such an order can be cancelled or reduced only with the supervision and approval of both an Executive Floor Governor and a qualified Exchange officer. In the event an Executive Floor Governor is not available, a Floor Governor’s approval must be obtained.

The Exchange also proposes adding supplementary material to NYSE Rule 48 that provides that the amendments proposed in this rule filing to include an extreme market volatility condition at the close and the related proposed rule suspensions in such a condition are temporary and will end on December 31, 2008.

2. Statutory Basis

The basis under the Act for this proposed rule change is the requirement

under Section 6(b)(5)⁵ that an Exchange have rules that are designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest.

B. Self-Regulatory Organization’s Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has designated the proposed rule change as one that: (1) Does not significantly affect the protection of investors or the public interest; (2) does not impose any significant burden on competition; and (3) does not become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest. Therefore, the foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act⁶ and Rule 19b-4(f)(6) thereunder.⁷

A proposed rule change filed pursuant to Rule 19b-4(f)(6) normally does not become operative for 30 days after the date of its filing.⁸ However, Rule 19b-4(f)(6)(iii)⁹ permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. In view of the immediate nature of the relief requested, the Exchange seeks to have the proposed amendments become operative immediately. The Exchange has requested that the Commission waive the 30-day operative delay. Waiver of this period will allow the Exchange to

⁵ 15 U.S.C. 78f(b)(5).

⁶ 15 U.S.C. 78s(b)(3)(A).

⁷ 17 CFR 240.19b-4(f)(6).

⁸ In addition, Rule 19b-4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. NYSE has satisfied this requirement.

⁹ 17 CFR 240.19b-4(f)(6)(iii).

immediately implement the proposed rule change.

The Exchange believes that given the current market climate, immediate implementation of the foregoing proposed rule change is necessary in order to avoid significant disruption to the market and to ensure investor protection in light of the potential for additional volatility in the market as the credit crisis continues. In particular, recent and near-term events, including the Emergency Economic Stabilization Act of 2008 and the pending expiration of the Commission's Emergency Order that prohibits persons from selling short the securities of financial institutions,¹⁰ could cause additional volatility in the market in the coming days. Moreover, the Exchange proposes suspending only those rules that could impact specialists' ability to arrange a fair and orderly close during an extreme market volatility condition. Finally, the proposed changes to NYSE Rule 48 are temporary and will end on December 31, 2008. The Exchange believes that its need to immediately implement the proposed rule change satisfies the standards set out in the Exchange Act and related rules.

The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission therefore grants the Exchange's request and designates the proposal to be operative upon filing.¹¹

At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate the rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or

- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-NYSE-2008-102 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549-1090.

All submissions should refer to File Number SR-NYSE-2008-102. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site (<http://www.sec.gov/rules/sro.shtml>). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of NYSE. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-NYSE-2008-102 and should be submitted on or before November 4, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹²

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24236 Filed 10-10-08; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-58745; File No. SR-NYSEArca-2008-94]

Self-Regulatory Organizations; NYSE Arca, Inc.; Order Granting Accelerated Approval of a Proposed Rule Change Amending NYSE Arca Equities Rules 5.1(b)(14) and 5.2(j)(2) To Permit the Listing of Equity Linked Notes That Are Linked to Securities Issued by Companies Registered Under the Investment Company Act of 1940

October 7, 2008.

On August 25, 2008, NYSE Arca, Inc. ("NYSE Arca" or "Exchange"), through its wholly owned subsidiary, NYSE Arca Equities, Inc. ("NYSE Arca Equities"), filed with the Securities and Exchange Commission ("Commission"), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 ("Exchange Act")¹ and Rule 19b-4 thereunder,² a proposed rule change to amend NYSE Arca Equities Rules 5.1(b)(14) and 5.2(j)(2) to permit the listing of Equity Linked Notes ("ELNs") that are linked to securities issued by companies registered under the Investment Company Act of 1940 ("1940 Act")³ and are listed on a national securities exchange. The proposed rule change was published in the **Federal Register** on September 19, 2008 for a 15-day comment period.⁴ The Commission received no comments on the proposal. This order grants approval to the proposed rule change on an accelerated basis.

I. Description of the Proposal

The Exchange proposes to amend NYSE Arca Equities Rules 5.1(b)(14), the Exchange's definition of ELNs, and NYSE Arca Equities Rule 5.2(j)(2), the Exchange's listing standards for ELNs, to permit the listing of ELNs that are linked to securities issued by companies registered under the 1940 Act and are listed on a national securities exchange.

A. Definition of ELN

NYSE Arca Equities Rule 5.1(b)(14) currently defines ELNs as notes that are linked, in whole or in part, to the market performance of up to thirty common stocks or non-convertible preferred stocks. The Exchange proposes to amend NYSE Arca Equities Rule 5.1(b)(14) and define ELNs as notes that are linked, in whole or in part, to

¹⁰ See Securities Exchange Act Release No. 58592 (September 18, 2008), 73 FR 55169 (September 24, 2008).

¹¹ For purposes only of waiving the 30-day operative delay of this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

¹² 17 CFR 200.30-3(a)(12).

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ 15 U.S.C. 80a-1.

⁴ See Securities Exchange Act Release No. 58518 (September 11, 2008), 73 FR 54446.

the market performance of up to thirty underlying equity securities that meet the criteria in NYSE Arca Equities Rule 5.2(j)(2).

B. Securities Underlying ELNs

NYSE Arca Equities Rule 5.2(j)(2) currently provides minimum standards applicable to the securities underlying ELNs and the issuers of such securities. Under NYSE Arca Equities Rule 5.2(j)(2)(C)(ii), each issuer of an underlying security to which an ELN is to be linked must be a reporting company under the Exchange Act that is listed on a national securities exchange. The Exchange proposes to expand this provision to provide that an issuer of an underlying security to which an ELN is to be linked may also be a 1940 Act registered investment company. In addition, the Exchange proposes to further clarify the rule to state that, in either case, any underlying security to which the ELN is linked must be listed on a national securities exchange.

The Exchange further proposes to replace the term "common stock" with the term "shares" in NYSE Arca Equities Rule 5.2(j)(2)(C)(ii)(2) to take into account that certain underlying securities, particularly those that are securities issued by 1940 Act registered investment companies, are not labeled "common stock." Similarly, in NYSE Arca Equities Rule 5.2(j)(2)(D)(i), the Exchange proposes to delete the term "common" when it qualifies "shares" to take into account that certain underlying securities, particularly those that are securities issued by 1940 Act registered investment companies, are not labeled "common shares." For purposes of NYSE Arca Equities Rule 5.2(j)(2), as amended, the term "shares" shall encompass common stock, non-convertible preferred stock, and securities issued by 1940 Act registered investment companies as eligible underlying securities. As a result, with respect to NYSE Arca Equities Rule 5.2(j)(2)(C)(ii)(2), the combined trading volume of each non-U.S. security (a security issued by a non-U.S. company) and other related non-U.S. securities occurring in the U.S. market or in markets with which the Exchange has in place a comprehensive surveillance sharing agreement must represent (on a share equivalent basis for any American Depositary Shares ("ADSs")) at least 50% of the combined worldwide trading volume in each such non-U.S. security, other related non-U.S. securities, and other classes of common stock, non-convertible preferred stock, or securities of 1940 Act registered investment companies related to each such non-U.S. security, as the case may be, over

the six month period preceding the date of listing. In addition, with respect to NYSE Arca Equities Rule 5.2(j)(2)(D)(i): (1) An issuance of ELNs relating to any underlying U.S. security may not exceed five percent of the total outstanding common stock, non-convertible preferred stock, or securities of 1940 Act registered investment companies for each such underlying security, as the case may be; and (2) the issuance of ELNs relating to any underlying non-U.S. security represented by ADSs, common stock, non-convertible preferred stock, or securities of 1940 Act registered investment companies, or otherwise, may not exceed: (a) Two percent of the total shares outstanding of the relevant underlying security worldwide if at least 20 percent of the worldwide trading volume in each non-U.S. security and related non-U.S. security occurs in the U.S. market during the six-month period preceding the date of listing; or (b) three percent of the total shares outstanding of the relevant underlying security worldwide if at least 50 percent of the worldwide trading volume in each non-U.S. security and related non-U.S. security occurs in the U.S. market during the six-month period preceding the date of listing; and (c) five percent of the total shares outstanding of the relevant underlying security worldwide if at least 70 percent of the worldwide trading volume in each non-U.S. security and related non-U.S. security occurs in the U.S. market during the six-month period preceding the date of listing.

C. Additional Technical Changes

Lastly, the Exchange proposes to correct the numbering of NYSE Arca Equities Rule 5.2(j)(2)(C)(iv) to NYSE Arca Equities Rule 5.2(j)(2)(C)(iii). The Exchange also proposes to change the reference to the Division of Market Regulation to the Division of Trading and Markets in NYSE Arca Equities Rule 5.2(j)(2)(D)(i).

II. Discussion and Commission's Findings

The Commission has carefully reviewed the proposed rule change and finds that it is consistent with the requirements of Section 6 of the Exchange Act⁵ and the rules and regulations thereunder applicable to a national securities exchange.⁶ In particular, the Commission finds that the proposal is consistent with Section

6(b)(5) of the Exchange Act,⁷ which requires, among other things, that the Exchange's rules be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

With respect to the proposal to expand the listing criteria for ELNs to encompass notes that are linked to the securities of 1940 Act registered investment companies, the Commission notes that the proposed rule requires such securities to be listed and trading on a national securities exchange. The Commission also notes that the issuers of such underlying securities must be registered under the 1940 Act and, pursuant to the disclosure requirements thereunder, financial and other types of information relating to the registered investment companies would be readily available for investors and other market participants. Finally, the Commission notes that the securities issued by 1940 Act registered investment companies would trade on the same platforms as equity securities under the Exchange Act and would be subject to the same Exchange trading rules as equity securities. As such, the Commission believes that this proposal will benefit investors by providing investors and other market participants with enhanced investment options and flexibility, while maintaining sufficient transparency and minimum standards with respect to the securities underlying ELNs.

The Commission also believes that the proposed amendments in NYSE Arca Equities Rules 5.2(j)(2)(C)(ii)(2) and 5.2(j)(2)(D)(i) to characterize the word "shares" conform with the overall purpose of the proposed rule change and clarify the application of the proposed amendments as they relate to the eligibility of securities underlying ELNs. In addition, the Commission believes that the additional technical corrections made to NYSE Arca Equities Rule 5.2(j)(2) further clarify the application of the rule. For the foregoing reasons, the Commission finds that the proposed rule change is consistent with Section 6(b)(5) of the Exchange Act⁸ and the rules and regulations thereunder applicable to a national securities exchange.

⁵ 15 U.S.C. 78f.

⁶ In approving this proposed rule change the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

⁷ 15 U.S.C. 78f(b)(5).

⁸ 15 U.S.C. 78f(b)(5).

III. Accelerated Approval

The Commission finds good cause, pursuant to Section 19(b)(2) of the Exchange Act,⁹ for approving the proposed rule change prior to the thirtieth day after the date of publication of the Notice in the **Federal Register**. The Commission notes that the proposal is similar to NYSE Arca Equities Rule 5.2(j)(6)(B)(I), the Exchange's Equity Index-Linked Securities listing rules, which allow underlying indexes to include, in whole or in part, on securities issued by certain companies registered under the 1940 Act and are listed on a national securities exchange.¹⁰ The Commission finds that the proposed rule change does not raise any novel regulatory issues and believes that accelerating approval of this proposal should benefit investors by creating, without undue delay, additional competition in the marketplace for ELNs.

IV. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Exchange Act,¹¹ that the proposed rule change (SR-NYSEArca-2008-94) be, and it hereby is, approved on an accelerated basis.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.¹²

Florence E. Harmon,

Acting Secretary.

[FR Doc. E8-24238 Filed 10-10-08; 8:45 am]

BILLING CODE 8011-01-P

DEPARTMENT OF STATE

[Public Notice 6392]

Culturally Significant Objects Imported for Exhibition Determinations: "Art and Love in Renaissance Italy"

ACTION: Notice, correction.

SUMMARY: On August 26, 2008, notice was published on page 50394 of the **Federal Register** (volume 73, number 166) of determinations made by the Department of State pertaining to the exhibit, "Art and Love in Renaissance Italy." The referenced notice is corrected as to additional objects to be included in the exhibition. Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and

Restructuring Act of 1998 (112 Stat. 2681, *et seq.*; 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236 of October 19, 1999, as amended, and Delegation of Authority No. 257 of April 15, 2003 [68 FR 19875], I hereby determine that the additional objects to be included in the exhibition "Art and Love in Renaissance Italy", imported from abroad for temporary exhibition within the United States, are of cultural significance. The additional objects are imported pursuant to loan agreements with the foreign owners or custodians. I also determine that the exhibition or display of the exhibit objects at The Metropolitan Museum of Art, New York, New York, from on or about November 11, 2008, until on or about February 16, 2009; and at the Kimbell Art Museum, Fort Worth, Texas, from on or about March 15, 2009 until on or about June 14, 2009; and at possible additional exhibitions or venues yet to be determined, is in the national interest. Public Notice of these Determinations is ordered to be published in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: For further information, including a list of the exhibit objects, contact Wolodymyr Sulzynsky, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: (202) 453-8050). The address is U.S. Department of State, SA-44, 301 4th Street, SW., Room 700, Washington, DC 20547-0001.

Dated: October 5, 2008.

C. Miller Crouch,

Principal Deputy Assistant Secretary for Educational and Cultural Affairs, Department of State.

[FR Doc. E8-24333 Filed 10-10-08; 8:45 am]

BILLING CODE 4710-05-P

DEPARTMENT OF STATE

[Public Notice 6389]

Shipping Coordinating Committee; Notice of Subcommittee Meeting

The Shipping Coordinating Committee (SHC), through its Subcommittee on IMO Administration and Budgeting, will conduct an open meeting at 2 p.m. on Friday, October 31, 2008, in Room 4420 of the United States Coast Guard Headquarters Building, 2100 Second Street, SW., Washington, DC 20593. The primary purpose of the meeting is to prepare for the one hundred and first Session of the International Maritime Organization (IMO) Council to be held at IMO headquarters, in London, United

Kingdom, from November 10 to November 14, 2008.

The primary matters to be considered include:

- Adoption of the agenda
- Report of the Secretary-General on credentials
- Strategy and planning
- Organizational reforms
- Resource management:
- Voluntary IMO Member State Audit Scheme
- Consideration of the report of the Marine Environment Protection Committee, the Legal Committee, and Consultative Meeting of Contracting Parties to the London Convention
- Protection of vital shipping lanes
- External relations (World Maritime Day and Relations with specialized agencies, intergovernmental organizations, and non-governmental organizations)
- Report on the status of the Convention and membership of the Organization
- Report on the status of conventions

Members of the public may attend this meeting up to the seating capacity of the room. Persons planning to attend this meeting should contact the meeting coordinator, LCDR Jason Smith not later than 72 hours before the meeting by e-mail at jason.e.smith2@uscg.mil, by phone at (202) 372-1372, by fax at (202) 372-1925, or in writing at Commandant (CG-5212), U.S. Coast Guard Headquarters, 2100 2nd Street, SW., Room 1308, Washington, DC 20593-0001.

The U.S. Coast Guard Headquarters building is accessible by taxi and privately owned conveyance (public transportation is not generally available). Please note, however, that parking in the vicinity of the building is extremely limited. Please also note that due to security considerations, two valid, government issued photo identifications must be presented to gain entrance to the Coast Guard Headquarters building. If you have any questions about this SHC subcommittee meeting, please contact LCDR Jason Smith at the numbers or addresses listed above.

Dated: October 3, 2008.

Mark Skolnicki,

Executive Secretary, Shipping Coordinating Committee, Department of State.

[FR Doc. E8-24331 Filed 10-10-08; 8:45 am]

BILLING CODE 4710-09-P

⁹ 15 U.S.C. 78s(b)(2).

¹⁰ See Securities Exchange Act Release No. 56879 (December 3, 2007), 72 FR 69271 (December 7, 2007) (SR-NYSEArca-2007-110).

¹¹ 15 U.S.C. 78s(b)(2).

¹² 17 CFR 200.30-3(a)(12).

DEPARTMENT OF STATE**[Public Notice 6390]****Shipping Coordinating Committee; Notice of Subcommittee Meeting**

The Shipping Coordinating Committee (SHC), through its Subcommittee on the Safety of Life at Sea, will conduct an open meeting at 10 a.m. on Tuesday, November 4, 2008, in Room 2415 of the United States Coast Guard Headquarters Building, 2100 Second Street, SW., Washington, DC 20593-0001. The primary purpose of the meeting is to prepare for the eighty-fifth Session of the International Maritime Organization (IMO) Marine Safety Committee (MSC) to be held at IMO headquarters in London, United Kingdom, from November 26 to December 5, 2008. The primary matters to be considered include:

- Adoption of the agenda
- Decisions of other IMO bodies
- Consideration and adoption of amendments to mandatory instruments
- Measures to enhance maritime security
- Goal-based new ship construction standards
- Long range identification and tracking (LRIT) related matters
- Technical assistance sub-programme in maritime safety and security
- Capacity-building for the implementation of new measures
- Role of the human element
- Formal safety assessment
- Piracy and armed robbery against ships
- General cargo ship safety
- Reports of six subcommittees—Ship design and equipment, Training and Watchkeeping, Radiocommunications and Search and Rescue, Flag State Implementation, Safety of Navigation, Stability, Load Lines and Fishing Vessel Safety, Dangerous Goods, Solid Cargoes and Containers
- Relations with other organizations
- Election of Chairman and Vice-Chairman for 2009

Members of the public may attend this meeting up to the seating capacity of the room. Persons planning to attend this meeting should contact the meeting coordinator, LCDR Jason Smith, not later than 72 hours before the meeting by e-mail at jason.e.smith2@uscg.mil, by phone at (202) 372-1372, by fax at (202) 372-1925, or in writing at Commandant (CG-5212), U.S. Coast Guard Headquarters, 2100 2nd Street, SW., Room 1308, Washington, DC 20593-0001.

The U.S. Coast Guard Headquarters building is accessible by taxi and

privately owned conveyance (public transportation is not generally available). Please note, however, that parking in the vicinity of the building is extremely limited. Please also note that due to security considerations, two valid, government issued photo identifications must be presented to gain entrance to the Coast Guard Headquarters building. If you have any questions about this SHC subcommittee meeting, please contact LCDR Jason Smith at the numbers or addresses listed above.

Dated: October 3, 2008.

Mark Skolnicki,

Executive Secretary, Shipping Coordinating Committee, Department of State.

[FR Doc. E8-24336 Filed 10-10-08; 8:45 am]

BILLING CODE 4710-09-P

DEPARTMENT OF TRANSPORTATION**Federal Highway Administration****Notice of Availability of the Mid County Parkway Draft Environmental Impact Report/Environmental Impact Statement**

DATE: October 2008.

AGENCY: United States Department of Transportation, Federal Highway Administration.

ACTION: Notice of Availability (NOA) of a Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS).

SUMMARY: The Riverside County Transportation Commission (RCTC), the Federal Highway Administration (FHWA), and California Department of Transportation (Caltrans) announce the availability of the Mid County Parkway (MCP) Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) that evaluates the environmental effects of the proposed MCP project. The MCP project will construct a new west-east parkway between Interstate 15 (I-15) on the west and State Route 79 (SR-79) on the east which will provide a direct and continuous route connecting existing and planned major population/employment centers in the County of Riverside and the cities of Corona, Perris, and San Jacinto, a distance of approximately 51 kilometers (km) (32 miles [mi]). The project alternatives consist of five Build Alternatives (4, 5, 6, 7 and 9) and two No Build Alternatives (1A and 1B).

DATES: The comment period for the MCP Draft EIR/EIS will end 60 days after publication of the NOA in the

Federal Register. The RCTC is hosting public informational meetings to provide the public with information about the Draft EIR/EIS. The public informational meetings will be held on October 28, 29, & 30, 2008 at the following locations, respectively: Eagle Glen Golf Course, 1800 Eagle Glen Parkway, Corona CA 92883; Perris Senior Center, 100 North D Street, Perris, CA 92570; and Valley Wide Recreation and Park District—Sport Center Meeting Room, 901 West Esplanade Avenue, San Jacinto, CA 92581. At these “open house” style meetings, you may attend anytime between 6 p.m. and 8 p.m. to view informational displays and the Draft EIR/EIS. The MCP project team will be available to discuss your questions, comments, and suggestions, one-on-one, regarding the proposed project.

In addition, the RCTC is holding two formal public hearings to accept public comments. These public hearings will be held on November 6, 2008 at 6 p.m. at the Perris City Council Chambers, 101 North D Street, Perris CA 92570 and November 12, 2008 at 9:30 a.m. at the RCTC—Board Room, 4080 Lemon Street, Main Floor, Riverside, CA 92501.

Contact/Address: Comments on the MCP Draft EIR/EIS can be mailed to the following addresses: Ms. Cathy Bechtel at RCTC, 4080 Lemon Street, 3rd Floor, Riverside, CA 92502 and/or Mr. Tay Dam, FHWA, 650 Capitol Mall, Suite 4-100, Sacramento, CA 95814, or via e-mail at: midcountyparkway.org.

FOR FURTHER INFORMATION CONTACT: Ms. Cathy Bechtel at RCTC: (951) 787-7141, or Mr. Tay Dam at FHWA: (213) 605-2013.

SUPPLEMENTARY INFORMATION: The MCP Draft EIR/EIS evaluates the environmental and socioeconomic effects of constructing and implementing the proposed MCP project. The purpose of the proposed MCP project is to provide a transportation parkway that would effectively and efficiently accommodate regional west-east movement of people and goods between and through Corona, Perris, and San Jacinto. The proposed MCP project is subject to federal, as well as local and State, environmental review requirements because the RCTC proposes the use of federal funds from the FHWA and/or the project requires a FHWA approval action. Project documentation, therefore, has been prepared in compliance with both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). The RCTC is the project proponent and the lead agency under CEQA. Because of

FHWA funding and/or approval, FHWA is lead agency under NEPA, with the Caltrans acting as its liaison and providing oversight for the NEPA process. Some potential project impacts determined to be significant under CEQA may not be considered significant under NEPA.

After comments are received from the public and reviewing agencies, the RCTC and the FHWA may undertake additional environmental and/or engineering studies. A Final EIR/EIS will include responses to comments received on the Draft EIR/EIS. Following preparation of the Final EIR/EIS, if the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA and a Record of Decision will be published for compliance with NEPA.

The MCP Alternatives evaluated in the Draft EIR/EIS include five Build Alternatives (4, 5, 6, 7 and 9) and two No Build Alternatives (1A and 1B). At its regular meeting of September 12, 2007, the RCTC Board approved identification of Alternative 9 with the Temescal Wash Design Variation (TWS DV) as the locally preferred alternative for the MCP project. However, the final selection of an alternative will not be made until after the consideration of public comments on the Draft EIR/EIS, and before approval of the Final EIR/EIS.

Alternative 1A represents 2035 traffic on the planned street network except for future improvements to Cajalco Road and Ramona Expressway, which would remain as they exist today. Construction of the MCP project would not be implemented with the No Project/No Action Alternative 1A. The future west-east traffic described in the study area would be served by the existing Cajalco Road and El Sobrante Road between I-15 and Interstate 215 (I-215) and by the existing Ramona Expressway between I-215 and SR-79. This alternative assumes 2035 land use conditions and implementation of planned improvements to the regional and local circulation system as accounted for in the adopted Riverside County General Plan (2003), RCTC's Measure A program, and other adopted plans and policies.

Alternative 1B represents 2035 traffic levels on the planned street network, according to the Circulation Element of the Riverside County General Plan. Construction of the MCP project would not be implemented with No Project/No Action Alternative 1B. This alternative is the same as Alternative 1A but includes the implementation of Cajalco Road and Ramona Expressway improvements consistent with the

Riverside County General Plan Circulation Element.

Alternative 4 is a six-to eight-lane limited access parkway alternative. Alternative 4 is located south of Lake Mathews and follows a northerly alignment through Perris. This alternative would be located south of the existing Cajalco Road west of Lake Mathews Drive and located north of Ramona Expressway from I-215 to the Perris Drain, from where it follows the Perris Drain on an elevated structure southerly to Placentia Avenue. From that point, Alternative 4 continues east through the McCanna Hills, where it follows Ramona Expressway. Alternative 4 would connect to system-to-system interchanges at I-15, I-215, and SR-79.

Alternative 5 is a six-to eight-lane limited access parkway alternative. Alternative 5 is located south of Lake Mathews and follows a southerly alignment through Perris. This alternative is located south of the existing Cajalco Road west of Lake Mathews Drive and is located south of Ramona Expressway from I-215 (following Rider Street and Placentia Avenue) to just west of Antelope Road. From that point, Alternative 5 continues east where it follows Ramona Expressway. Alternative 5 would connect to system-to-system interchanges at I-15, I-215, and SR-79.

Alternative 6 involves the implementation of arterial improvements included in the Riverside County General Plan west of El Sobrante, including a six-lane arterial north of Lake Mathews and a four-lane limited access expressway south of Lake Mathews. East of El Sobrante, this alternative is the same as Alternative 4 described above, providing a new six-to eight-lane limited access parkway. The proposed arterial street improvements north and south of Lake Mathews are consistent with the Riverside County General Plan Circulation Element and generally follow the alignments shown in the General Plan.

Alternative 7 involves the implementation of arterial improvements included in the Riverside County General Plan west of El Sobrante, including a six-lane arterial north of Lake Mathews, a four-lane limited-access expressway south of Lake Mathews. East of El Sobrante, this alternative is the same as Alternative 5 described above, providing a new six-to eight-lane limited access parkway. The proposed arterial street improvements north and south of Lake Mathews are consistent with the Riverside County General Plan Circulation Element and

generally follow the alignments shown in the General Plan.

Alternative 9 is a four-to six-lane controlled access parkway between I-15 and Old Elsinore Road, south of Lake Mathews and Mead Valley. The alternative is aligned south of Metropolitan Habitat Conservation Plan Reserve lands and traverses the Gavilan Hills area. From Old Elsinore Road to the I-215 interchange, Alternative 9 is a six-to eight-lane controlled access parkway. East of I-215, Alternative 9 follows Placentia Avenue; east of Evans Road, it follows a common alignment with Alternatives 4-7 through McCanna Hills and along Ramona Expressway. Alternative 9 is a six-to eight-lane controlled-access parkway between I-215 and SR-79. Alternative 9 would connect to system-to-system interchanges at I-15, I-215, and SR-79.

The Draft EIR/EIS and technical studies are available for viewing at the following locations during regular business hours: (1) RCTC, 4080 Lemon Street, 3rd Floor, Riverside, CA 92502; (2) FHWA, 650 Capitol Mall, Suite 4-100, Sacramento, CA 95814; (3) Caltrans District 8 Office—6th Floor, 464 W. 4th St., San Bernardino, CA 92401; (4) City of Corona—Public Works Department, 400 South Vicentia Avenue, 2nd Floor, Suite 210, Corona, CA 92882; (5) Corona Public Library, 650 S. Main St., Corona, CA 92882; (6) Perris Public Library, 163 E. San Jacinto Ave., Perris, CA 92507; (7) San Jacinto Public Library, 500 Idyllwild Dr., San Jacinto, CA 92583; (8) Woodcrest Library, 16625 Krameria, Riverside, CA 92504; and (9) Hemet Library, 300 E. Latham Avenue, Hemet, CA 92543. You may also view and comment on the Draft EIR/EIS at <http://www.midcountyparkway.org>.

Issued on: October 2, 2008.

Nancy E. Bobb,

Director of State Programs, Major Projects Program Manager, Federal Highway Administration, 650 Capitol Mall, Suite 4-100, Sacramento, CA 95814.

[FR Doc. E8-23805 Filed 10-10-08; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Environmental Impact Statement: San Diego, CA

AGENCY: Federal Highway Administration (FHWA).

ACTION: Notice of Intent.

SUMMARY: FHWA is issuing this notice to advise the public that an Environmental Impact Statement (EIS)

will be prepared for the proposed State Route 76 (SR-76) South Mission Road to the Interstate 15 (I-15) interchange highway improvement project in San Diego County, California.

FOR FURTHER INFORMATION CONTACT:

Susanne Glasgow, Deputy District Director, at the California Department of Transportation, District 11—Environmental Division, M.S.-242, 4050 Taylor Street, San Diego, California 92110, Telephone (619) 688-0100.

SUPPLEMENTARY INFORMATION: Effective July 1, 2007, the Federal Highway Administration assigned and Caltrans assumed environmental responsibilities for this project, pursuant to 23 U.S.C. 327. Caltrans will prepare an Environmental Impact Statement (EIS) on a proposal for a highway improvement project in San Diego County, California. The proposed project would upgrade and improve operations on SR-76 from the vicinity of South Mission Road to the vicinity of the SR-76/I-15 interchange. The proposed improvements would upgrade the roadway to current design standards and improve operations of intersections and at the interchange on and off ramps. These improvements are considered necessary to provide for the increase in existing and projected traffic demand. The total length of the proposed project is approximately 5.2 miles. Preliminary alternatives under consideration include (1) Take no action; (2) construct improvements along the existing roadway; and (3) construct a new southern alignment. Anticipated final approvals for the proposed project include, but are not limited to, consultation with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act, Consultation under Section 2081 of the California Endangered Species Act, conformance with the Section 404 MOU Integration Process, conformance with Section 404 of the Clean Water Act, conformance with Section 1602 of the California Department of Fish and Game Code, conformance with Section 4(f), and conformance with the Clean Air Act.

Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, Cooperating/ Participating Agencies (including Tribal governments), local agencies, and to private organizations and citizens who have previously expressed or are known to have an interest in this proposal. National Environmental Policy Act documentation for the proposed project began in March 2008. The Public Scoping meeting will be held at the Bonsall Community Center in Bonsall, California on October 22, 2008, from 5

p.m. to 8 p.m. In addition, a public hearing will be held. Public notice will be given of the time and place of the public hearing (as applicable). The EIS will be available for public and agency review and comment prior to the public hearing.

To ensure that the full range of issues to this proposed action is addressed and all significant issues are identified, comments and suggestions are invited from all interested parties.

Comments or questions concerning this proposed action and the EIS should be directed to the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Issued on: October 7, 2008.

Nancy E. Bobb,

Director, State Programs, Sacramento, California.

[FR Doc. E8-24254 Filed 10-10-08; 8:45 am]

BILLING CODE 4910-22-P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

[Docket No. FHWA-2008-0140]

Proposed Memorandum of Understanding (MOU) Assigning Environmental Responsibilities to the State of Alaska

AGENCY: Federal Highway Administration (FHWA), Alaska Division Office, DOT.

ACTION: Notice of proposed MOU and request for comments.

SUMMARY: This notice announces that the FHWA and the Alaska Department of Transportation and Public Facilities (State) have developed a proposed MOU, pursuant to 23 U.S.C. 326, under which the FHWA would assign to the State the FHWA's responsibility for determining whether a project is categorically excluded from preparation of an environmental assessment or an environmental impact statement under the National Environmental Policy Act of 1969, 42 U.S.C. 4321 *et seq.* (NEPA), and for carrying out certain other responsibilities for conducting environmental reviews, consultations, and related activities for Federal-aid highway projects. The public is invited to comment on any aspect of the proposed MOU, including the proposed designations of categorical exclusions and scope of environmental review,

consultation and other activities to be assigned.

DATES: Please submit comments by November 28, 2008.

ADDRESSES: You may submit comments identified by Federal Document Management System (FDMS) Docket Number FHWA-2008-0140, or by any of the following methods:

Web site: <http://www.regulations.gov>.

Fax: 1-202-493-2251.

Mail: Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Room W12-140, Washington, DC 20590-0001

Hand Delivery: U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Room W12-140, Washington DC, between 9 a.m. and 5 p.m. (EST), Monday through Friday, except federal holidays.

Docket: For access to the docket to view a complete copy of the proposed MOU, or to read background documents or comments received, go to <http://www.regulations.gov> at any time or go to the ground floor, U.S. Department of Transportation, Room W12-140, 1200 New Jersey Avenue, SE., Washington DC, between 9 a.m. and 5 p.m. (EST), Monday through Friday, except federal holidays.

FOR FURTHER INFORMATION CONTACT: Tim Haugh, Environmental Program Manager, FHWA Alaska Division, 709 West 9th Street, Room 851, Juneau, AK 99802, Office Hours 7 a.m. to 3:30 p.m. (AST) Monday through Friday, (907) 586-7418, tim.haugh@dot.gov; or William Ballard, Statewide Environmental Manager, Statewide Design and Engineering Services, Alaska Department of Transportation and Public Facilities, P.O. Box 112500, Juneau, AK 99811-2500, Office Hours 8 a.m. to 4:30 p.m. (AST) Monday through Friday, (907) 465-6954, bill.ballard@alaska.gov.

SUPPLEMENTARY INFORMATION:

Electronic Access

An electronic copy of this notice may be downloaded using a computer, modem, and suitable communications software from the Government Printing Office's Electronic Bulletin Board Service at (202) 512-1661. Internet users may reach the Office of the Federal Register's home page at <http://www.archives.gov> and the Government Printing Office's Web site at <http://www.access.gpo.gov>. An electronic version of the proposed MOU may be downloaded by accessing the FDMS docket, as described above, at <http://www.regulations.gov>.

Background

Section 6004(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Pub. L. 109-059), codified as Section 326 of amended Chapter 3 of Title 23, United States Code (23 U.S.C. 326), allows the Secretary of the United States Department of Transportation (USDOT Secretary), to assign, and a State to assume, responsibility for determining whether certain designated activities are included within classes of action that are categorically excluded from requirements for environmental assessments or environmental impact statements pursuant to regulations promulgated by the Council on Environmental Quality under part 1500 of Title 40, Code of Federal Regulations (CFR) (as in effect on October 1, 2003). The FHWA is authorized to act on behalf of the USDOT Secretary with respect to these matters.

Under the proposed MOU, the FHWA would assign to the State the responsibility for making decisions on the following types of categorical exclusions:

1. Activities listed in 23 CFR 771.117(c);
2. The example activities listed in 23 CFR 771.117(d); and
3. Additional actions listed in Appendix A; None.

The proposed MOU also would assign to the State the responsibility for conducting Federal environmental review, consultation, and other related activities for projects that are subject to the MOU with respect to the following Federal laws and Executive Orders:

1. Clean Air Act, 42 U.S.C. 7401-7671q, determinations for project-level conformity if required for the project
2. Compliance with the noise regulations in 23 CFR 772
3. Section 7 of the Endangered Species Act of 1973, 16 U.S.C. 1531-1544, and Section 1536 (except as specified in Stipulation II.B.2 of the MOU)
4. Marine Mammal Protection Act, 16 U.S.C. 1361
5. Anadromous Fish Conservation Act, 16 U.S.C. 757a-757g
6. Fish and Wildlife Coordination Act, 16 U.S.C. 661-667d
7. Migratory Bird Treaty Act, 16 U.S.C. 703-712
8. Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended, 16 U.S.C. 1801 et seq.
9. Bald and Golden Eagle Protection Act, 16 U.S.C. 668-668c

10. Section 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470(f) et seq.
11. Section 4(f) of the Department of Transportation Act of 1966, 23 U.S.C. 138 and 49 U.S.C. 303
12. Archaeological and Historic Preservation Act of 1966, as amended, 16 U.S.C. 469-469(c)
13. American Indian Religious Freedom Act, 42 U.S.C. 1996
14. Farmland Protection Policy Act, 7 U.S.C. 4201-4209
15. Clean Water Act, 33 U.S.C. 1251-1377
16. Coastal Barrier Resources Act, 16 U.S.C. 3501-3510
17. Coastal Zone Management Act, 16 U.S.C. 1451-1465
18. Safe Drinking Water Act, 42 U.S.C. 300f-300j-6
19. Rivers and Harbors Act of 1899, 33 U.S.C. 401-406
20. Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287
21. Emergency Wetlands Resources Act, 16 U.S.C. 3921, 3931
22. Transportation Equity Act of the 21st Century, 23 U.S.C. 103(b)(6)(m) and 133(b)(11)
23. Flood Disaster Protection Act, 42 U.S.C. 4001-4128
24. Land and Water Conservation Fund, 16 U.S.C. 4601-4604
25. Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601-9675
26. Superfund Amendments and Reauthorization Act of 1986
27. Resource Conservation and Recovery Act, 42 U.S.C. 6901-6992k
28. Landscaping and Scenic Enhancement, 23 U.S.C. 319
29. E.O. 11990, Protection of Wetlands
30. E.O. 11988, Floodplain Management
31. E.O. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
32. E.O. 11593, Protection and Enhancement of the Cultural Environment
33. E.O. 13007, Indian Sacred Sites
34. E.O. 13175, Consultation and Coordination with Indian Tribal Governments
35. E.O. 13112, Invasive Species

The MOU would allow the State to act in the place of the FHWA in carrying out the functions described above, except with respect to government-to-government consultations with federally-recognized Indian tribes. The FHWA will retain responsibility for conducting formal government-to-government consultation with federally recognized Indian tribes, which is required under some of the listed laws

and executive orders. The State will continue to handle routine consultations with the tribes and understands that a tribe has the right to direct consultation with the FHWA upon request. The State also may assist the FHWA with formal consultations, with consent of a tribe, but the FHWA remains responsible for the consultation. This assignment includes transfer to the State the obligation to fulfill the assigned environmental responsibilities on any proposed projects meeting the criteria in Stipulation I(B) of the MOU that were determined to be CEs prior to the effective date of the proposed MOU but that have not been completed as of the effective date of the MOU.

A copy of the proposed MOU may be viewed on the FDMS Docket, as described above, or may be obtained by contacting the FHWA or the State at the addresses provided above. A copy also may be viewed at <http://www.dot.state.ak.us/stwddes/dcsenviron/index.shtml>.

Once the FHWA makes a decision on the proposed MOU, the FHWA will place in the FDMS Docket a statement describing the outcome of the decision-making process and a copy of the final MOU, if any. Copies of those documents also may be obtained by contacting the FHWA or the State of Alaska at the addresses provided above, or by viewing the documents at <http://www.dot.state.ak.us/stwddes/dcsenviron/index.shtml>.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 23 U.S.C. 326; 42 U.S.C. 4331, 4332; 23 CFR 771.117; 40 CFR 1507.3, 1508.4.

Issued on: October 6, 2008.

David C. Miller,

Division Administrator, Juneau, Alaska.

[FR Doc. E8-24249 Filed 10-10-08; 8:45 am]

BILLING CODE 4910-RY-P

DEPARTMENT OF TRANSPORTATION

Maritime Administration

[Docket No. MARAD 2008 0095]

Information Collection Available for Public Comments and Recommendations

ACTION: Notice of intention to request extension of OMB approval and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Maritime Administration's (MARAD's) intention to request extension of approval (with modifications) for three years of a currently approved information collection.

DATES: Comments should be submitted on or before December 15, 2008.

FOR FURTHER INFORMATION CONTACT: T. Mitchell Hudson, Maritime Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590. Telephone: 202-366-9373; or e-mail: mitchell.hudson@dot.gov. Copies of this collection also can be obtained from that office.

SUPPLEMENTARY INFORMATION: Maritime Administration (MARAD)

Title of Collection: Requirements for Eligibility of U.S.-Flag Vessels of 100 Feet or Greater in Registered Length to Obtain a Fishery Endorsement.

Type of Request: Extension of currently approved information collection.

OMB Control Number: 2133-0530.

Form Numbers: None.

Expiration Date of Approval: Three years from date of approval by the Office of Management and Budget.

Summary of Collection of Information: In accordance with the American Fisheries Act of 1998, owners of vessels of 100 feet or greater who wish to obtain a fishery endorsement to the vessel's documentation are required to file with the Maritime Administration (MARAD) an Affidavit of United States Citizenship.

Need and Use of the Information: The information collection is necessary for MARAD to determine that a particular vessel is owned and controlled by United States citizens and is eligible to receive a fishery endorsement to its documentation.

Description of Respondents: Vessel owners, charterers, mortgagees, mortgage trustees and managers of vessels of 100 feet or greater who seek a fishery endorsement for the vessel.

Annual Responses: 1 response.

Annual Burden: 2,950 hours.

Comments: Comments should refer to the docket number that appears at the top of this document. Written comments may be submitted to the Docket Clerk, U.S. DOT Dockets, Room W12-140, 1200 New Jersey Avenue, SE.,

Washington, DC 20590. Comments also may be submitted by electronic means via the Internet at <http://www.regulations.gov/search/index.jsp>. Specifically address whether this information collection is necessary for proper performance of the functions of the agency and will have practical utility, accuracy of the burden estimates, ways to minimize this burden, and ways to enhance the quality, utility, and clarity of the information to be collected. All comments received will be available for examination at the above address between 10 a.m. and 5 p.m. EDT (or EST), Monday through Friday, except Federal Holidays. An electronic version of this document is available on the World Wide Web at <http://www.regulations.gov/search/index.jsp>.

Privacy Act: Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477-78) or you may visit <http://www.regulations.gov/search/index.jsp>.

Authority: 49 CFR 1.66.

By Order of the Maritime Administrator,
Dated: September 25, 2008.

Leonard Sutter,

Secretary, Maritime Administration.

[FR Doc. E8-24226 Filed 10-14-08; 8:45 am]

BILLING CODE 4910-81-P

DEPARTMENT OF TREASURY

Office of the General Counsel; Appointment of Members of the Legal Division to the Performance Review Board, Internal Revenue Service

This notice replaces listing published on September 16, 2008, Volume 73 FR, page #53490.

Under the authority granted to me as Chief Counsel of the Internal Revenue Service by the General Counsel of the Department of the Treasury by General Counsel Order No. 21 (Rev. 4), pursuant to the Civil Service Reform Act, I have appointed the following persons to the Legal Division Performance Review Board, Internal Revenue Service Panel:

1. Chairperson, Stephen Albrecht, Counselor to the General Counsel (Department of Treasury).

2. Steve T. Miller, Commissioner (Tax Exempt and Government Entities).

3. James Falcone, Acting Deputy Commissioner for Operations Support (IRS).

This publication is required by 5 U.S.C. 4314(c)(4).

Dated: October 3, 2008.

Donald L. Korb,

Chief Counsel, Internal Revenue Service.

[FR Doc. E8-24314 Filed 10-10-08; 8:45 am]

BILLING CODE 4830-01-P

DEPARTMENT OF TREASURY

Office of the General Counsel; Appointment of Members of the Legal Division to the Performance Review Board, Internal Revenue Service

Correction—On September 16, 2008, Volume 73 FR, page # 53490 we issued this notice listing Clarissa Potter, Deputy Chief Counsel (Technical) as Chairperson; however, the Chairperson will be H. Stephen Kesselman, Deputy Chief Counsel (Operations).

Under the authority granted to me as Chief Counsel of the Internal Revenue Service by the General Counsel of the Department of the Treasury by General Counsel Order No. 21 (Rev. 4), pursuant to the Civil Service Reform Act, I have appointed the following persons to the Legal Division Performance Review Board, Internal Revenue Service Panel:

1. Chairperson, H. Stephen Kesselman, Deputy Chief Counsel (Operations).

2. Roland Barral, Area Counsel (Large and Mid-Size Business).

3. Ellen T. Friberg, Area Counsel (Small Business/Self Employed).

4. Steve Larson, Associate Chief Counsel (Financial Institutions and Products).

5. Edward Cronin (Ted), Division Counsel/Associate Chief Counsel (Criminal Tax).

This publication is required by 5 U.S.C. 4314(c)(4).

Dated: October 7, 2008.

Donald L. Korb,

Chief Counsel, Internal Revenue Service.

[FR Doc. E8-24318 Filed 10-10-08; 8:45 am]

BILLING CODE 4830-01-P



Federal Register

**Tuesday,
October 14, 2008**

Part II

Department of Commerce

**National Oceanic and Atmospheric
Administration**

50 CFR Part 216

**Taking and Importing Marine Mammals;
U.S. Navy's Atlantic Fleet Active Sonar
Training (AFAST); Proposed Rule**

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****50 CFR Part 216**

[Docket No. 0080724897–8900–01]

RIN 0648–AW90

Taking and Importing Marine Mammals; U.S. Navy's Atlantic Fleet Active Sonar Training (AFAST)

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to training activities conducted off the U.S. Atlantic Coast and in the Gulf of Mexico for the period of January 2009 through January 2014. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is proposing regulations to govern that take and requesting information, suggestions, and comments on these proposed regulations.

DATES: Comments and information must be received no later than November 13, 2008.

ADDRESSES: You may submit comments, identified by 0648–AW90, by any one of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal <http://www.regulations.gov>.
- Hand delivery or mailing of paper, disk, or CD–ROM comments should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225.

Instructions: All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments Enter N/A in the required fields, if you wish to remain anonymous). Attachments to electronic comments will be accepted in Microsoft

Word, Excel, WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Jolie Harrison, Office of Protected Resources, NMFS, (301) 713–2289, ext. 166.

SUPPLEMENTARY INFORMATION:**Availability**

A copy of the Navy's application may be obtained by writing to the address specified above (See **ADDRESSES**), telephoning the contact listed above (see **FOR FURTHER INFORMATION CONTACT**), or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. The Navy's Draft Environmental Impact Statement (DEIS) for AFAST was published on February 15, 2008, and may be viewed at <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS is participating in the development of the Navy's EIS as a cooperating agency under NEPA.

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens, who engage in a specified activity (other than commercial fishing) during periods of not more than five consecutive years each if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as:

"an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108–136) removed the "small numbers" and "specified geographical region" limitations and amended the definition of "harassment" as it applies to a "military readiness activity" to read as follows (Section 3(18)(B) of the MMPA):

(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or

(ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Summary of Request

On February 4, 2008, NMFS received an application from the Navy requesting authorization for the take of individuals of 40 species of marine mammals incidental to upcoming Navy training activities, maintenance, and research, development, testing, and evaluation (RDT&E) activities to be conducted within the AFAST Study Area, which extends east from the Atlantic Coast of the U.S. to 45° W. long. and south from the Atlantic and Gulf of Mexico Coasts to approximately 23° N. lat., but not encompassing the Bahamas (see Figure 1–1 in the Navy's Application), over the course of 5 years. These training activities are classified as military readiness activities. The Navy states, and NMFS concurs, that these training activities may incidentally take marine mammals present within the AFAST Study Area by exposing them to sound from mid-frequency or high frequency active sonar (MFAS/HFAS) or to employment of the improved extended echo ranging (IEER) system. The IEER consists of an explosive source sonobuoy (AN/SSQ–110A) and an air deployable active receiver (ADAR) sonobuoy (AN/SSQ–101). The Navy requests authorization to take individuals of 40 species of marine mammals by Level B Harassment. Further, though they do not anticipate it to occur, the Navy requests authorization to take, by injury or mortality, up to 10 beaked whales over the course of the 5-yr regulations.

Background of Navy Request

The purpose of the Navy's proposed action is to provide mid- and high-frequency active sonar and IEER system training for U.S. Navy Atlantic Fleet ship, submarine, and aircraft crews, as well as to conduct RDT&E activities to support the requirements of the Fleet Readiness Training Plan (FRTTP) and stay proficient in anti-submarine warfare (ASW) and mine warfare (MIW) skills. The FRTTP is the Navy's training cycle that requires naval forces to build up in preparation for operational deployment and to maintain a high level of proficiency and readiness while deployed. All phases of the FRTTP training cycle are needed to meet Title 10 requirements.

The Navy's need for training and RDT&E is found in Title 10 of the United States Code (U.S.C.), Section 5062 (10 U.S.C. 5062). Title 10 U.S.C. 5062 requires the Navy to be "organized, trained, and equipped primarily for prompt and sustained combat incident to operations at sea." The current and emerging training and RDT&E activities addressed in the AFAST Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) are conducted in fulfillment of this legal requirement.

The RDT&E activities addressed in the AFAST EIS/OEIS are those RDT&E activities that are substantially similar to training, involving existing systems or systems with similar operating parameters.

Description of Specified Activities

Anti-Submarine Warfare (ASW) Training

The Navy explains that potential adversary nations are investing heavily in submarine technology, including designs for nuclear attack submarines, strategic ballistic missile submarines, and modern diesel electric submarines. In addition, the modern diesel electric submarine is the most cost-effective platform for the delivery of several types of weapons, including torpedoes, long-range antiship cruise missiles, land attack missiles, and a variety of antiship mines. Since submarines are inherently covert and can operate independently of escort vessels, submarines can be used to conduct intrusive operations in sensitive areas and can be inserted early in the mission without being detected. The inability to detect a hostile submarine before it can launch a missile or a torpedo is a critical vulnerability that puts U.S. forces and merchant mariners at risk and, ultimately, threatens U.S. national security.

Because Navy personnel ultimately fight as trained, a training environment that matches the conditions of actual combat is necessary. Sailors must also train using the combat tools (e.g., active sonar) that would be used during a conflict. A complicating factor facing the Navy today is the nature of the littoral waters where submarines can operate. These littoral regions are frequently confined, congested water and air space, which makes identification of allies, adversaries, and neutral parties more challenging than in deeper waters. Since an adversary equipped with modern, quiet submarines has the potential to deny all Department of Defense (DoD) forces access to strategic areas of the world, the

value of active sonar training has broad effects for all DoD forces.

Mine Warfare (MIW) Training

The use of naval mines is one of the simplest ways for enemies to damage ships and disrupt shipping lanes. Over the past 60 years, at least 14 U.S. ships, including two in the last decade alone, have been damaged or sunk by mines as a result of relatively small-scale mine laying operations. Furthermore, since more than 90 percent of military equipment used in international operations travels by sea, mines have the potential to either delay land and sea military operations by denying access to shallow-water areas, or prevent the delivery of military equipment altogether.

Today, the Navy can expect to encounter a wide spectrum of naval mines, from traditional, low technology mines, to technologically advanced systems. For instance, mines can have irregular shapes, sound-absorbent coatings, and nonmagnetic material composition, which increase their resistance to countermeasures and reduce their maintenance requirements. This means that mines can stay active in the water longer, are harder to find and are more difficult to neutralize (disarm with the use of countermeasures). More advanced mines are designed with remote controls, improved sensors, and counter countermeasures that further complicate efforts to identify, classify, and neutralize them. In addition to improved mine technology, the underwater acoustic conditions often present in shallow waters require the use of specialized technology to successfully detect, avoid, and neutralize mines (DON, 2006a).

Training on MIW sonar is crucial because mines are a proven and cost-effective technology that is continually improving to make them more lethal, reliable, and difficult to detect. Because mines do not emit sound, active sonar technology, rather than passive, provides the warfighter with the capability to quickly and accurately detect, classify, and neutralize mines in small, crowded, shallow-water environments. These MIW capabilities are essential to ensuring the U.S.'s maritime dominance and protecting the Navy's ability to operate on both land and sea, including delivery of military equipment.

As indicated above, the Navy has requested MMPA authorization to take marine mammals incidental to training activities in the AFAST Study Area that would generate sound in the water at or above levels that NMFS has determined

will likely result in take (see Acoustic Take Criteria Section), either through the use of MFAS/HFAS or the employment of the IEER system, which includes explosive sonobuoys. Below we discuss the types of sound sources the Navy would utilize and the specific exercise types they would use them in.

Acoustic Sources Used for ASW and MIW Exercises in AFAST

There are two types of sonars, passive and active:

- Passive sonars only listen to incoming sounds and, since they do not emit sound energy in the water, lack the potential to acoustically affect the environment.

- Active sonars generate and emit acoustic energy specifically for the purpose of obtaining information concerning a distant object from the received and processed reflected sound energy.

Modern sonar technology includes a multitude of sonar sensor and processing systems. In concept, the simplest active sonars emit omnidirectional pulses ("pings") and time the arrival of the reflected echoes from the target object to determine range. More sophisticated active sonar can emit an omni-directional ping and then rapidly scan a steered receiving beam to provide directional, as well as range, information. Even more advanced sonars transmit multiple preformed beams and listen to echoes from several directions simultaneously to provide efficient detection of both direction and range.

The tactical sonars to be deployed during testing and training in the AFAST Study Area are designed to detect submarines and mines in tactical training scenarios. These tasks require the use of the sonar mid-frequency range (1 kilohertz [kHz] to 10 kHz) predominantly, as well as a few sources in the high frequency range (above 10 kHz). For this document we will refer to the collective high and mid-frequency sonar sources as MFAS/HFAS. A narrative description of the types of acoustic sources used in ASW and MIW training exercises is included below. Table 1 (below) summarizes the nominal characteristics of the acoustic sources used in the modeling to predict take of marine mammals as well as the estimated annual operation time. Acoustic systems that typically operate at frequencies above 200kHz were not analyzed because they are outside the upper hearing limits of almost all marine mammals and attenuate rapidly due to their extremely high frequencies.

In addition, systems that were found to have similar acoustic output

parameters (i.e., frequency, power, deflection angles) were compared. The system with the largest acoustic

footprint was modeled as representative of those similar systems that have a smaller acoustic footprint. An example

of this representative modeling is the AN/AQS-22 for the AN/AQS-13.

System	Center Frequency (kHz)	Source Level (re 1 μ Pa)	Associated Platform	System Description	Annual Quantity	Unit
AN/SQS-53	3.5	235	DDG and CG hull-mounted sonar (surface ship)	ASW search, detection, & localization; utilized 70% in search mode and 30% track mode	3214	Hours
AN/SQS-56	7.5	225	FFG hull-mounted sonar (surface ship)	ASW search, detection, & localization; Utilized 70% in search mode and 30% track mode	1684	Hours
AN/SQS-53 and AN/SQS-56 (Kingfisher)	Classified (MF)	Classified	DDG, CG, and FFG hull-mounted sonar (object detection)	Only used when entering and leaving port	216	Hours
AN/BQQ-5 or 10	Classified (MF)	Classified	Submarine hull-mounted sonar	ASW search and attack (approximately one ping per two hours when in use)	9976	Pings
AN/AQS-22 or 13*	4.1	217	Helicopter dipping sonar	ASW sonar lowered from hovering helicopter (approximately 10 pings/dip, 30 seconds between pings)	2952	Dips
MK-48 Torpedo	Classified (HF)	Classified	Submarine fired exercise torpedo (heavyweight)	Recoverable and non-explosive exercise torpedo; sonar is active approximately 15 min per torpedo run	32	Torpedoes
MK-46 or 54 Torpedo	Classified (HF)	Classified	Surface ship and aircraft fired exercise torpedo (lightweight)	Recoverable and non-explosive exercise torpedo; sonar is active approximately 15 min per torpedo run	24	Torpedoes
Tonal sonobuoy (DICASS) (AN/SSQ-62)	8	201	Helicopter and MPA deployed	Remotely commanded expendable sonar-equipped buoy (approximately 12 pings per use, 30 secs between pings)	5853	Buoys
IEER (AN/SSQ-110A)	Classified (Impulsive - Broadband)	Classified	MPA deployed	ASW system consists of explosive acoustic source buoy (contains two 4.1 lb charges) and expendable passive receiver sonobuoy	872	Buoys
AN/SLQ-25 (NIXIE)	Classified (MF)	Classified	DDG, CG, and FFG towed array (countermeasure)	Towed countermeasure to avert localization and torpedo attacks (approximately 20 mins per use)	332	Hours
AN/SQQ-32	Classified (HF)	Classified	MCM over the side system (mine-hunting)	Used during MIW training events detect, classify, and localize bottom and moored mines	4474	Hours
AN/BQS-15	Classified (HF)	Classified	Submarine navigational sonar	Only used when entering and leaving port	450	Hours
MK-1, MK-2, MK-3, and MK-4 ADCs**	Classified (MF & HF)	Classified	Submarine countermeasure	Expendable acoustic device countermeasure (approximately 20 mins per use)	225	ADCs
Noise Acoustic Emitters (NAE)	Classified (broadband MF-HF)	Classified	Submarine countermeasure	Expendable acoustic countermeasure (20 mins per use)	127	NAEs

Table 1. Acoustic sources used in AFAST exercises that were modeled for effects on marine mammals

*AN/AQS-22 modeling is representative of all helicopter dipping sonar

**MK-3 modeling is representative of all ADCs

ADC – Acoustic Device Countermeasure; CG – Guided Missile Cruiser; DDG – Guided Missile Destroyer; DICASS – Directional Command-Activated Sonobuoy System; DIFAR – Directional Frequency Analysis and Recording; FFG – Fast Frigate; HF – High-Frequency; IEER – Improved Extended Echo Ranging; kHz – Kilohertz; MCM – Mine Countermeasures; MF – Mid-Frequency; MIW – Mine Warfare; MPA – Maritime Patrol Aircraft

Surface Ship Sonars—A variety of surface ships operate the AN/SQS-53 and AN/SQS-56 hull-mounted MFAS during ASW sonar training exercises, currently including 10 guided missile cruisers (CG) (AN/SQS-53), 26 guided missile destroyers (DDG) (AN/SQS-53), and 18 fast frigates (FFG) (AN/SQS 56) on the east coast.

About half of the U.S. Navy ships do not have any onboard tactical sonar

systems. Within the AFAST Study Area, these two types of hull-mounted sonar sources account for the majority of the estimated impacts to marine mammals. The AN/SQS-53 hull-mounted sonar, which has a nominal source level of 235 decibels (dB) re 1 μ Pa and transmits at a center frequency 3.5 kHz, is the Navy's most powerful sonar source used in ASW exercises in the AFAST Study Area.

Hull-mounted sonars occasionally operate in a mode called “Kingfisher”, which is designed to better detect smaller objects. The Kingfisher mode uses the same source level and frequency as normal search modes, however, it uses a different waveform (designed for small objects), a shorter pulse length (< 1 sec), a higher pulse repetition rate (due to the short ranges),

and the ping is not omnidirectional, but directed forward.

Submarine Sonars—Tactical submarines (i.e., 29 nuclear powered attack submarines (SSN) on the east coast) equipped with BQQ-5 or BQQ-10 hull-mounted MFA sonars, are used to detect and target enemy submarines and surface ships. A submarine's mission revolves around its stealth; therefore, MFAS are used very infrequently since the pinging of the MFAS also identifies the location of the submarine. Note that the BQQ-10 is the more predominant system, and that the system is identified throughout the remainder of this document with the understanding that the BQQ-5 and BQQ-10 are similar in those operational parameters with a potential to affect marine mammals. In addition, Seawolf Class attack submarines, Virginia Class attack submarines, Los Angeles Class attack submarines, and Ohio Class nuclear guided missile submarines also have the AN/BQS-15, a sonar that uses both mid- and high-frequency for under-ice navigation and mine-hunting.

Aircraft Sonar Systems—Aircraft sonar systems that would operate in the AFAST Study Area include sonobuoys (AN/SSQ-62 and AN/SSQ-110A) and dipping sonar (AN/AQS-13 or AN/AQS-22).

- Sonobuoys, deployed by both helicopter and fixed-wing Maritime Patrol aircraft (MPA), are expendable devices that are either tonal (active), impulsive (explosive), or listening (passive). The Navy uses a tonal sonobuoy called a Directional Command-Activated sonobuoy System (DICASS AN/SQQ-62) and a sonobuoy system called an IEER system, which consists of an explosive source sonobuoy (AN/SSQ-110A) and a passive receiver sonobuoy (AN/SSQ-101). The Navy also uses a passive sonobuoy called a Directional Frequency Analysis and Recording (DIFAR). Passive listening sonobuoys such as DIFAR (AN/SSQ-53) are deployed from helicopters or maritime patrol aircraft and do not emit active sonar. These systems are used for the detection and tracking of submarine threats.

- Dipping active/passive sonars, present on helicopters, are recoverable devices that are lowered via a cable to detect or maintain contact with underwater targets. The Navy uses the

AN/AQS-13 and AN/AQS-22 dipping sonars. Helicopters can be based ashore or aboard a ship.

Torpedoes—Torpedoes are the primary ASW weapons used by surface ships, aircraft, and submarines. The guidance systems of these weapons can be autonomous or electronically controlled from the launching platform through an attached wire. The autonomous guidance systems are acoustically based. They operate either passively by listening for sound generated by the target, or actively by pinging the target and using the echoes for guidance. All torpedoes to be used during ASW activities are recoverable and nonexplosive. The majority of torpedo firings occurring during AFAST activities are air slugs (dry fire) or shapes (i.e., solid masses resembling the weight and shape of a torpedo).

Acoustic Device Countermeasures (ADC)—Several types of countermeasure devices could be deployed during Fleet training exercises, including the Acoustic Device Countermeasure MK-1, MK-2, MK-3, MK-4, and the AN/SLQ-25A (NIXIE). Countermeasure devices act as decoys to avert localization and torpedo attacks. Countermeasures may be towed or free floating sources.

Training Targets—ASW training targets are used to simulate target submarines. They are equipped with one or more of the following devices: (1) Acoustic projectors emanating sounds to simulate submarine acoustic signatures, (2) echo repeaters to simulate the characteristics of the echo of a particular sonar signal reflected from a specific type of submarine, and (3) magnetic sources to trigger magnetic detectors. The Navy uses the Expendable Mobile Acoustic Training Target (EMAT) and the MK-30 acoustic training targets (recovered) during ASW sonar training exercises.

Types of ASW and MIW Exercises in the AFAST Study Area

ASW and MIW training is conducted to meet deployment certification requirements as directed in the FRTP. The U.S. Navy Atlantic Fleet meets these requirements by conducting training activities prior to deployment of forces. The FRTP requires Basic Unit Level Training (ULT), Intermediate, and Sustainment Training. The Navy meets these requirements during Independent ULT, Coordinated ULT, and Strike

Group Training. At the beginning of the cycle, basic combat skills are learned and practiced during basic Independent ULT activities, which include training and sonar maintenance activities that each individual unit is required to accomplish in order to become certified prior to deploying or to maintain proficiency. Basic skills are then refined during Coordinated ULT activities, which concentrate on warfare team training and initial multiunit operations. During this phase, vessels and aircraft begin to develop warfare skills in coordination with other units while continuing to maintain unit proficiency. Strike Group Training continues to develop and refine warfare skills and command and control procedures using progressively more difficult, complex, and large scale exercises conducted at an increasing tempo. This training provides the warfighter with the skills necessary to function as part of a coordinated fighting force in a hostile environment with the capacity to accomplish multiple missions.

Additionally, RDT&E activities are conducted to develop new technologies and to ensure their effectiveness prior to implementation. Maintenance activities are conducted pier side and during transit to training exercise locations. Active sonar maintenance is required to ensure the sonar system is operating properly before engaging in the training exercise or when the sonar systems are suspected of performing below optimal levels.

Because the Navy conducts many different types of Independent ULT, Coordinated ULT, Strike Group training, maintenance, and RDT&E active sonar events, the Navy grouped similar events to form representative scenarios. Note that specific training event names and other details do occasionally change as required to meet the current operational needs. Table 2 lists the types of ASW, MIW, and maintenance exercises and indicates: The nature of the exercise, the areas the exercises are conducted in and the area they span, the average duration of an exercise, the average number of exercises/per year, and the sound sources that are used in the exercises.

Table 1 indicates the total number of hours for each source type anticipated for each year for each exercise type.

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Event Name	Training Event Scenarios	Events per Year*	Length of Overall Event	Possible Event Areas***	Typical Event Area Dimensions	Equipment or Action	Equipment Use or Action per Event	Annual Use per Event Type*
INDEPENDENT UNIT LEVEL TRAINING (INCLUDING RDT&E)								
Surface Ship ASW ULT	One or two surface ships (CG, DDG, and FFG) conducting ASW localization and tracking training.	457	2 to 6 hours	VACAPES, CHPT, JAX/CHASN, and GOMEX OPAREAs	5 NM x 10 NM to 30 NM x 40 NM	Surface ship MFA ASW sonar (AN/SQS-53 or AN/SQS-56) Acoustic countermeasures (AN/SLO-25 NIXIE, MK-1, MK-2, MK-3, MK-4, or Noise Acoustic Emitter) MK-46 or MK-54 Torpedo MK-39 EMATT or MK-30 target Vessel movement	1 to 2 ships (CG, DDG, or FFG) pinging 1 to 3 hours each 20 minutes per NIXIE, MK-1, MK-2, MK-3, or MK-4 Noise Acoustic Emitter Exercise torpedoes could be used for RDT&E 1 EMATT or MK-30 (recoverable) per exercise may be used as a target 1 to 2 ships maneuvering	1071 hours AN/SQS-53 and 465 hours AN/SQS-56 158 NIXIE 225 MK-1, MK-2, MK-3, or MK-4 127 Noise Acoustic Emitter 8 MK-46 or MK-54 exercise torpedoes up to 725 EMATTs expended (total annual use for all exercises) Approximately 54 CG, DDG, and FFG surface ships conducting ULT throughout the year
Surface Ship Object Detection ULT	One ship (CG, DDG, and FFG) conducting object detection during transit in/out of port for training and safety during reduced visibility.	108	1 to 2 hours	Sea lanes and Entrance channels to Norfolk, Virginia and Mayport, Florida	5 NM x 10 NM	Surface ship MFA ASW sonar (AN/SQS-53 or AN/SQS-56 Kingfisher) operated in object detection mode Vessel movement	1 ship (CG, DDG, or FFG) pinging for 1 to 2 hours 1 ship maneuvering	148 hours AN/SQS-53 and 68 hours AN/SQS-56 Approximately 54 CG, DDG, and FFG surface ships on the East Coast conducting object avoidance twice a year
Helicopter ASW ULT	One helicopter conducting ASW training using dipping sonar or sonobuoys	165	2 to 4 hours	VACAPES, CHPT, and JAX/CHASN OPAREAs	20 NM x 30 NM	Helicopter dipping sonar (AN/AQS-13 or AN/AQS-22) Tonal sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR) AN/SSQ-53D/E MK-46 or MK-54 Torpedo MK-39 EMATT or MK-30 target	1 helicopter dipping up to two hours (10 pings per five-minute dip) Up to 4 tonal sonobuoys (DICASS) Number of sonobuoys deployed can vary exercise torpedoes could be used for RDT&E 1 EMATT or MK-30 (recoverable) per exercise may be used as a target	160 hours 549 sonobuoys up to 27,500 sonobuoys expended (total annual use for all exercises) 8 MK-46 or MK-54 exercise torpedoes up to 725 EMATTs expended (total annual use for all exercises) 3600 pings
Submarine ASW ULT	One submarine conducting ASW and SUW training using passive and active sonar.	100	2 to 3 days	Northeast, VACAPES, CHPT, JAX/CHASN, and GOMEX OPAREAs	30 NM x 40 NM	Submarine MFA sonar (AN/BQQ-10) MK-48 Torpedo Vessel movement	1 submarine pinging once per two hours (average 36 pings per event) Number of exercise torpedoes could be used in a single RDT&E event could vary 1 submarine maneuvering 1 EMATT or MK-30 (recoverable) per exercise may be used as a target	32 MK-48 exercise torpedoes Approximately 25 submarines on the East Coast conducting ULT throughout the year up to 725 EMATTs expended (total annual use for all exercises) 450 hours
Submarine Navigational	One submarine operating sonar for navigation and object detection during transit in/out of port during reduced visibility.	300	1 to 2 hours	Sea lanes and entrance channels to Norfolk, Virginia; Groton, Connecticut; and Kings Bay, Georgia	5 NM x 10 NM	Submarine MFA object detection sonar (AN/BQQ-10 or AN/BQS-15) Vessel movement	1 submarine pinging 1 to 2 hours 1 submarine maneuvering	Approximately 30 submarines on the East Coast conducting ULT throughout the year

Table 2a. Descriptions of the activities included in the Navy's AFAST MMPA authorization request.

Event Name	Training Event Scenarios	Events per Year*	Length of Overall Event	Possible Event Areas**	Typical Event Area Dimensions	Equipment or Action	Equipment Use or Action per Event	Annual Use per Event Type*
MPA ASW ULT (total sonobuoy)	One MPA conducting ASW submarine localization and tracking training using total sonobuoys.	791	2 to 8 hours	Northeast, VACAPES, CHPT, JAX/CHASN, and GOMEX OPAREAs	30 NM x 30 NM to 60 NM x 60 NM	Total sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR), AN/SSQ-53D/E MK-46 or MK-54 Torpedo MK-39 EMATT (repeater) and or MK-30 Target explosive source sonobuoy (AN/SSQ-110A)	Up to 10 total sonobuoys (DICASS) Number of sonobuoys deployed can vary exercise torpedoes could be used for RDT&E 1 EMATT or MK-30 (recoverable) per exercise may be used as a target Up to 14 AN/SSQ-110A sonobuoys	3594 sonobuoys up to 27,500 sonobuoys expended (total annual use for all exercises) 8 MK-46 or 54 exercise torpedoes up to 725 EMATTs expended (total annual use for all exercises) 676 sonobuoys
MPA ASW ULT (explosive source sonobuoy [AN/SSQ-110A])	One MPA conducting ASW submarine localization and tracking training using explosive source sonobuoy (AN/SSQ-110A).	169	2 to 8 hours	Northeast, VACAPES, CHPT, JAX/CHASN, and GOMEX OPAREAs	60 NM x 60 NM	receiver (ADAR) sonobuoy (AN/SSQ-101) Surface ship HFA MIW sonar (AN/SSQ-32) Vessel movement	Up to 5 AN/SSQ-101 sonobuoys 1 ship (MCM) pinging for 1 to 15 hours 1 to 2 ships maneuvering	239 sonobuoys 2074 hours of AN/SSQ-32 Approximately 19 MIW surface ships conducting ULT throughout the year
Surface Ship MIW ULT	One ship (MCM) conducting mine localization training.	266	Less than 24 hours	GOMEX OPAREAs	1 NM x 2 NM			
COORDINATED UNIT LEVEL TRAINING								
Southeastern Anti-Submarine Warfare Integrated Training Initiative (SEASWITI) and similar RDT&E	A combined exercise with two DDGs, one FFG with embarked helicopter, two submarines, and one MPA	4	5 to 7 days	JAX/CHASN OPAREAs	30 NM x 30 NM	Surface ship MFA ASW sonar (AN/SSQ-53 or AN/SSQ-56) Helicopter ASW dipping sonar (AN/AQS-13 or AN/AQS-22) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Total sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR), AN/SSQ-53D/E Vessel movement	2 to 3 ships (CG, DDG, or FFG) pinging daily for several hours 1 helicopter dipping several times daily (10 pings per five-minute dip) 1 submarine pinging up to four times daily 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter 1 MPA dropping up to 8 sonobuoys in one day; 24 sonobuoys for entire Number of sonobuoys deployed can vary	440 hours AN/SSQ-53 200 hours AN/SSQ-56 10 hours 100 pings ADCs may be used during the event; annual total ADC expenditure shown under ASW Surface ULT 120 total sonobuoys (DICASS) up to 27,500 sonobuoys expended (total annual use for all exercises) 3 to 4 ships maneuvering over 5-7 days, up to four times a year 285 hours AN/SSQ-53 100 hours AN/SSQ-56 5 hours AN/AQS-13 or AN/AQS-22 60 pings ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT 180 sonobuoys up to 27,500 sonobuoys expended (total annual use for all exercises)
Integrated ASW Course (IAC)	A combined exercise with three DDGs, one CG, one FFG, two to three helicopters, one to two submarines, and one MPA	5	2 to 5 days	VACAPES, CHPT, and JAX/CHASN OPAREAs	120NM X 60NM	Surface ship MFA ASW sonar (AN/SSQ-53 or AN/SSQ-56) Helicopter ASW dipping sonar (AN/AQS-13 or AN/AQS-22) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Total sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR), AN/SSQ-53D/E	5 ships pinging for up to 10 hours 1 helicopter dipping up to one hour (10 pings per five-minute dip) 1-2 submarines pinging up to 6 times each 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter Helicopters and/or MPA dropping up to 36 sonobuoys Number of sonobuoys deployed can vary	

Table 2b. Descriptions of the activities included in the Navy's AFAST MMPA authorization request.

Event Name	Training Event Scenarios	Events per Year*	Length of Overall Event	Possible Areas***	Typical Event Area Dimensions	Equipment or Action	Equipment Use or Action per Event	Annual Use per Event Type*
Group Sail	A combined exercise with two DDGs with embarked helicopters, and one submarine.	20	2 to 3 days	VACAPES, CHPT, and JAX/CHASN OPAREAS	30 NM x 30 NM	Surface ship MFA ASW sonar (AN/SQS-53 or AN/SQS-56) Helicopter ASW dipping sonar (AN/AQS-13 or AN/AQS-22) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Tonal sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR)/AN/SSQ-53D/E Vessel movement	2-3 ships pinging for several hours 1 helicopter dipping up to 6 hours (10 pings per five-minute dip) 1 submarine pinging up to two times 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter 1 helicopter dropping up to 4 sonobuoys Number of sonobuoys deployed can vary 3 ships maneuvering 3 ships maneuvering over 5-7 days, up to 20 times a year 2 submarines pinging up to 12 times each 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter 2 submarines maneuvering 1 to 5 ships (MCM) 60-90 hours each 1 to 5 ships (MCM) maneuvering 2,400 hours AN/SSQ-32 1 to 5 ships maneuvering up to 100 days a year	240 hours AN/SQS-53 120 hours AN/SQS-56 60 hours AN/AQS-13 or AN/AQS-22 40 pings ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT 80 sonobuoys up to 27,500 sonobuoys expended (total annual use for all exercises) 3 ships maneuvering over 5-7 days, up to 20 times a year 48 pings ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT Maneuvering twice a year for 3-5 days 2,400 hours AN/SSQ-32 1 to 5 ships maneuvering up to 100 days a year
Submarine Command Course (SCC) Operations	Two submarines operating against each other as part of the SCC for prospective submarine Commanding Officers.	2	3 to 5 days	NE and JAX/CHASN OPAREAS	30 NM x 50 NM	Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Vessel movement	2 submarines pinging up to 12 times each 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter 2 submarines maneuvering 1 to 5 ships (MCM) 60-90 hours each 1 to 5 ships (MCM) maneuvering	ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT Maneuvering twice a year for 3-5 days 2,400 hours AN/SSQ-32 1 to 5 ships maneuvering up to 100 days a year
RONEX and GOMEX MIW Exercises	One to five MCM ships conducting mine localization training.	8	10 to 15 days	GOMEX OPAREA	20 NM x 20 NM	Surface ship HFA MIW sonar (AN/SSQ-32 and AN/SLQ-48**) Vessel movement	1 to 5 ships (MCM) 60-90 hours each 1 to 5 ships (MCM) maneuvering	Maneuvering twice a year for 3-5 days 2,400 hours AN/SSQ-32 1 to 5 ships maneuvering up to 100 days a year
STRIKE GROUP TRAINING								
ESG COMPTUEX and CSG COMPTUEX and similar RDT&E	Intermediate level battle group exercise designed to create a cohesive CSG/ESG prior to deployment or JTFEX. Three DDGs, one FFG, helicopters, one MFA, and two submarines.	5 training events and similar RDT&E	21 days	VACAPES, CHPT, JAX/CHASN, and GOMEX OPAREAS	60 NM x 120 NM	Surface ship MFA ASW sonar (AN/SQS-53 and AN/SQS-56) Helicopter ASW dipping sonar (AN/AQS-13 or AN/AQS-22) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Tonal sonobuoy (DICASS) (AN/SSQ-62) Passive sonobuoy (DIFAR)/AN/SSQ-53D/E explosive source sonobuoy (AN/SSQ-110A) receiver (ADAR) sonobuoy (AN/SSQ-101) Vessel movement	4 ships (CG, DDG, or FFG) pinging approximately 60 hours each over 10 days 1 to 4 helicopters (10 pings per five-minute dip) during CSG COMPTUEX 2 submarines pinging up to 16 times each 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter MPA and/or helicopter dropping 3 to 10 sonobuoys for a total of up to 218 sonobuoys over duration of event Number of sonobuoys deployed can vary 2 MPA dropping up to 14 AN/SSQ-110A sonobuoys Up to 5 AN/SSQ-101 sonobuoys 6 ships (CG, DDG, FFG, or submarine) maneuvering	740 hours AN/SQS-53 250 hours AN/SQS-56 9 hours 116 pings ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT 982 sonobuoys up to 27,500 sonobuoys expended (total annual use for all exercises) 140 sonobuoys 49 sonobuoys 6 ships maneuvering up to 147 days a year

Table 2c. Descriptions of the activities included in the Navy's AFAST MMPA authorization request.

Event Name	Training Event Scenarios	Events per Year*	Length of Overall Event	Possible Event Areas***	Typical Event Area Dimensions	Equipment or Action	Equipment Use or Action per Event	Annual Use per Event Type*
JTFEX	Final fleet exercise prior to deployment of the CSG and ESG. Serves as a ready-to-deploy certification for all units. Four DDGs, two FFGs, one helicopter, one MPA, and three submarines.	2	10 days	JAX/CHASN and GOMEX OPAREAs	60 NM x 80 NM up to 180 NM x 180 NM	Surface ship MFA ASW sonar (AN/SQS-53 or AN/SQS-56) Helicopter ASW dipping sonar (AN/AQS-13 or AN/AQS-22) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10) Acoustic countermeasures (AN/SLQ-25 NIXIE, MK-2, MK-3, or Noise Acoustic Emitter) Total sonobuoy (DTCASS) (AN/SSQ-62)	6 ships (CG, DDG, FFG) pinging up to 23 hours each 1 helicopters dipping for up to one hour (10 pings per five-minute dip) 3 submarines pinging twice each 2 hours per NIXIE 20 minutes per MK-2, MK-3, and Noise Acoustic Emitter 1 MPA and/or 1 helicopter dropping 3 to 10 sonobuoys for a total of up to 174 sonobuoys over duration of event	200 hours AN/SQS-53 100 hours AN/SQS-56 2 hours 12 pings ADCs may be used during the event; annual total ADCs used shown under ASW Surface ULT 348 sonobuoys
MAINTENANCE								
Surface Ship Sonar Maintenance	Pier side and at-sea maintenance to sonar system.	410	2 to 4 hours	Northeast, VACAPES, CHPT, and JAX/CHASN, OPAREAs		Passive sonobuoy (DIFAR), AN/SSQ-53D/E explosive source sonobuoy (AN/SSQ-110A) receiver (ADAR) sonobuoy (AN/SSQ-101) Vessel movement	Number of sonobuoys deployed can vary 2 MPA dropping up to 14 AN/SSQ-110A sonobuoys Up to 5 AN/SSQ-101 sonobuoys 9 ships (CG, DDG, FFG, or submarine) maneuvering	up to 27,500 sonobuoys expended (total annual use for all exercises) 56 sonobuoys 20 sonobuoys Up to 9 ships maneuvering for up to 40 days a year
Submarine Sonar	Pier side and at-sea maintenance to sonar	200	1 hour	Northeast, VACAPES, CHPT,		Surface ship MFA ASW sonar (AN/SQS-53 OR AN/SQS-56) Submarine MFA sonar (AN/BQQ-5 or AN/BQQ-10)	1 ship (CG, DDG, or FFG) pinging 1 submarine pinging for up to one hour (60 pings per hour)	238 hours AN/SQS-53 449 hours AN/SQS-56 6000 pings (100 total hours of active sonar)

Table 2d. Descriptions of the activities included in the Navy's AFAST MMPA authorization request.

* Number of events and total hours modeled for acoustic effects analysis.

** The source frequency is greater than 200 kHz, which is above the known hearing range of marine mammals. These sources, therefore, were not modeled for the effects analysis.

*** OPAREAs also include area seaward of each OPAREA unless otherwise noted.

ADC – Acoustic Device Countermeasure; ASW – Antisubmarine Warfare; CHPT – Cherry Point; CG – Guided Missile Cruiser; COMPTUEX – Composite Training Exercise; CSG – Carrier Strike Group; DDG – Guided Missile Destroyer; DTCASS – Directional Command-Activated Sonobuoy System; EMATT – Expendable Acoustic Training Target; ESG – Expeditionary Strike Group; FFG – Fast Frigate; GOMEX – Gulf of Mexico; HFA – High-Frequency Active; IEER – Improved Extended Ranging; kHz – Kilohertz; JAX/CHASN – Jacksonville/Charleston; JTFEX – Joint Task Force Exercise; MCM – Mine Countermeasures; MFA – Mid-Frequency Active Mine Warfare; MPA – Maritime Patrol Aircraft; NM – Nautical Mile; OPAREA – Operating Area; RONEX – Squadron Exercise; SCC OPS – Submarine Command Operations; SEASWITI – Southeastern Anti-Submarine Warfare Integrated Training Initiative; SUW – Surface Warfare; TORPEX – Torpedo Exercise; ULT – Undersea Launching Training; VACAPES – Virginia Capes

The Navy's AFAST EIS and LOA application were designed specifically to cover active sonar training because the need for operational flexibility, a variety of training scenarios, as well as proximity to multiple ports, airfields, and bases along the eastern seaboard in these exercises has long necessitated that the exercises be conducted outside of the boundaries of any one Operating Areas (OPAREA). Alternately, exercises utilizing explosive detonations are typically conducted within a particular OPAREA, and as such are being addressed separately within EISs and LOA requests for the various applicable OPAREAs. With the exception of the Extended Echo Ranging and Improved Extended Echo Ranging (IEER) system, the AFAST proposed authorization does not contain any explosive sources, only MFAS and HFAS. The IEER is included in AFAST because it is most often used in ASW exercises. The IEER Systems are air-launched ASW systems used in conducting "large area" searches for submarines. These systems are made up of airborne avionics ASW acoustic processing and sonobuoy types that are deployed in pairs. The IEER System's active sonobuoy component, the AN/SSQ-110A Sonobuoy, would generate a "ping" (small detonation, as opposed to a sonar signal) and the passive AN/

SSQ-101 ADAR Sonobuoy would "listen" for the return echo of the ping that has been bounced off the surface of a submarine. These sonobuoys are designed to provide underwater acoustic data necessary for naval aircrews to quickly and accurately detect submerged submarines. The expendable and commandable sonobuoy pairs are dropped from a fixed-wing aircraft into the ocean in a predetermined pattern (array) with a few buoys covering a very large area. Upon command from the aircraft, the bottom payload is released to sink to a designated operating depth. A second command is required from the aircraft to cause the second payload to release and detonate generating a "ping". There is only one detonation in the pattern of buoys at a time.

Additional information on the Navy's proposed activities may be found in the LOA Application and the Navy's AFAST DEIS.

AFAST Study Area

Figure 1-1 in the Navy's application, which may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>, depicts the AFAST Study Area, which extends east from the Atlantic Coast of the U.S. to 45° W. long. and south from the Atlantic and Gulf of

Mexico Coasts to approximately 23° N. lat., but not encompassing the Bahamas (see Figure 1-1 in the Navy's Application). The Navy's Atlantic Fleet trains in a series of OPAREAs along the U.S. East Coast and in the Gulf of Mexico. Due to the size of the battle space needed for effective conduct of activities, training and testing also occur seaward of these OPAREAs. The OPAREAs include the Northeast OPAREA, the Virginia Capes (VACAPES) OPAREA, the Cherry Point (CHPT) OPAREA, the Jacksonville/Charleston (JAX/CHASN) OPAREA, and the Gulf of Mexico (GOMEX) OPAREA. The locations of the OPAREAs and the shoreward/seaward boundary of the Study Area are depicted in Figure 1-1 of the Navy's application. Note that the Northeast and Gulf of Mexico OPAREAs encompass a series of OPAREAs. The Northeast OPAREA includes the Boston, Atlantic City, and Narragansett Bay OPAREAs. The GOMEX OPAREAs includes the Pensacola, Panama City, Corpus Christi, New Orleans, and Key West OPAREAs. For the purposes of this document, an OPAREA includes the existing OPAREA, as well as adjacent shoreward and seaward areas. Table 3 summarizes the typical number of events per year by OPAREA.

	OPAREA					
	NE	VACAPES	CHPT	JAX/CHASN	GOMEX	TOTAL
Independent ULT						
Surface Ship ASW		69	91	292	5	457
Surface Ship Object Detection/Navigational Sonar		68		40		108
Helicopter ASW		25	25	115		165
Submarine ASW	30	10	14	45	1	100
Submarine Object Detection/Navigational Sonar	165	78		57		300
MPA ASW (tonal sonobuoy)	238	79	111	356	7	791
MPA ASW (explosive source sonobuoy)	34	34	34	34	34	170
Surface Ship MIW					266	266
Coordinated ULT						
SEASWITI				5		5
IAC		0.2	1.4	2.4	1	5
Group Sail		3	4	13		20
SCC Operations	0.4			1.6		2
RONEX and GOMEX Exercises					8	8
Strike Group Training						
ESG and CSG COMPTUEX*		0.2	1.4	2.4	1**	5
JTFEX		0.2	0.6	1.2	0	2
Maintenance						
Surface Ship Sonar Maintenance		61	82	263	4	410
Submarine Sonar Maintenance	30	10	14	45	1	100

* COMPTUEX distribution reflects the typical distribution of COMPTUEX across OPAREA boundaries.

** All events are considered equally likely to occur at any time during the year, except strike group exercises, which would not occur in the GOMEX OPAREA during hurricane season (summer and fall)

ASW - Antisubmarine warfare; CHPT - Cherry Point; COMPTUEX - Composite Training Unit Exercise; GOMEX - Gulf of Mexico; Jax/CHASN - Jacksonville/Charleston; JTFEX - Joint Task Force Exercise; MIW - Mine Warfare; MPA - Maritime Patrol Aircraft; NE - Northeast; OPAREA - Operating Area; RONEX - Squadron Exercise; SCC OPS - Submarine Command Course Operations; SEASWITI - Southeastern Antisubmarine Warfare Integrated Training Initiative; TORPEX - torpedo Exercise; ULT - Unit Level Training; VACAPES - Virginia Capes

Table 3. Summary of Activities by Operating Area

For the purposes of the proposed action that is the subject of this Letter of Authorization (LOA) request, active sonar activities would occur year-round throughout the Study Area. Active sonar activities would occur in locations that maximize active sonar opportunities and meet applicable operational requirements associated with a specific active sonar activity. Below we provide additional detail (beyond Tables 2 and 3), where available (i.e., the advance detail is available and the information is not classified), regarding where certain active sonar training, research, development, test, and evaluation (RDT&E), and maintenance activities would occur.

ASW Training Areas

ASW activities for all platforms could occur within and adjacent to existing East Coast OPAREAS beyond 22.2 km (12 NM) with the exception of sonar dipping activities. However, most ASW training involving submarines or

submarine targets would occur in waters greater than 183 m (600 ft) deep due to safety concerns about running aground at shallower depths. ASW active sonar activities occurring in specific locations are discussed below.

Helicopter ASW ULT Areas—This activity would be conducted in the waters of the East Coast OPAREAs typically near fleet concentration areas while embarked on a surface ship. Helicopter ASW ULT events are also conducted by helicopters deployed from shore-based Jacksonville, Florida, units. These helicopter units use established sonar dipping areas offshore Mayport (Jacksonville), Florida, which are located in territorial waters and within the southeast North Atlantic right whale (NARW) critical habitat. This is the only area where helicopter ASW ULT could occur within 22 km (12 NM) of shore.

Southeastern Anti-Submarine Warfare Integrated Training (SEASWITI) Areas—This training exercise generally occurs

in deep water off the coast of Jacksonville, Florida.

Group Sail Areas—These events typically take place within and seaward of the VACAPES, CHPT, and JAX/CHASN OPAREAs.

Submarine Command Course (SCC) Operations Areas—This training exercise typically occurs in the JAX/CHASN and Northeast OPAREAs in deep ocean areas.

Strike Group Training Areas—These events typically take place within and seaward of the VACAPES, CHPT, and JAX/CHASN OPAREAs, although an event could occasionally be conducted in the GOMEX OPAREA.

Torpedo Exercise (TORPEX) Areas—TORPEXs can occur anywhere within and adjacent to East Coast and GOMEX OPAREAs. The exception is in the Northeast OPAREA where the North Atlantic right whale critical habitat is located. TORPEX areas that meet current operational requirements for proximity to torpedo and target recovery

support facilities in the Northeast were established during previous consultations. Therefore, TORPEX activities in the northeast North Atlantic right whale critical habitat are limited to these established areas. Most torpedo activities would occur near torpedo recovery support facilities in the Northeast or GOMEX OPAREAs.

MIW Training Areas

MIW Training could occur in territorial or non-territorial waters. Independent and Coordinated MIW ULT activities would be conducted within and adjacent to the Pensacola and Panama City OPAREAs in the northern Gulf of Mexico and off the east coast of Texas in the Corpus Christi OPAREA. The Squadron Exercise (RONEX) or GOMEX Exercise would be conducted in both deep and shallow water training areas.

Object Detection/Navigational Training Areas—Surface Ship training would be conducted primarily in the shallow water port entrance and exit lanes for Norfolk, Virginia, and Mayport, Florida. The transit lane servicing Mayport, Florida crosses through the southeast North Atlantic right whale critical habitat. Submarine training would occur primarily in the established submarine transit lanes entering/exiting Groton, Connecticut; Norfolk, Virginia; and Kings Bay, Georgia. The transit lane servicing Kings Bay, Georgia crosses through the southeast North Atlantic right whale critical habitat.

Maintenance Areas

Maintenance activities could occur in homeports located in territorial waters, or in the open ocean during transit in non-territorial waters.

RDT&E Areas

For RDT&E activities included in this analysis, active sonar activities occur in similar locations as representative training events.

National Marine Sanctuaries

At present, the Navy does not conduct active sonar activities in the Stellwagen

Bank, USS Monitor, Gray's Reef, Flower Garden Banks, and Florida Keys National Marine Sanctuaries. The Navy would, as appropriate, comply with the National Marine Sanctuaries Act and any applicable regulations if it is determined that an active sonar activity may occur in or near these sanctuaries, and would ensure that naval activities be carried out in a manner that avoids to the maximum extent practicable any adverse impacts on sanctuary resources and qualities. Although activities in the Sanctuaries are not planned or anticipated, NMFS' analysis, for purposes of the MMPA considers the effects on marine mammals of the Navy's conducting activities in the biologically important areas that occur in or near Sanctuaries.

North Atlantic Right Whale (NARW) Critical Habitat

NMFS designated three areas in June 1994 as critical habitat for the western North Atlantic population of the North Atlantic right whale. They include the following:

1. Coastal Florida and Georgia (Sebastian Inlet, FL to the Altamaha River, GA),
2. Great South Channel (east of Cape Cod), and
3. Massachusetts Bay and Cape Cod Bay.

The Navy proposes to conduct two types of activities in the NARW critical habitat. Approximately 84 of the 115 helicopter dipping sonar exercises (2-4 hours each) conducted annually in the CHASN/JAX OPAREA would occur in the designated near-shore training area, which fans out approximately 10 miles from Mayport. Part of the near-shore shore training area overlaps the NARW critical habitat. However, historically, only maintenance of helicopter dipping sonars occurred (approximately 30 events) in the portion of the training area that overlaps with NARW critical habitat. Tactical training with helicopter dipping sonar does not typically occur in the NARW critical habitat area at any time of the year. The critical habitat area is used on occasion for post maintenance operational checks and

equipment testing due to its proximity to shore. In addition, the Navy would conduct approximately 40 ship object detection/navigational sonar training exercises (1-2 hours each) and 57 submarine object detection/navigational sonar training exercises (1-2 hours each) annually while entering/exiting port at Mayport, FL and Kings Bay, GA, respectively (within approximately 1 mile of the shore). These two activities could occur year round. No other active sonar activities would occur in the southeast critical habitat.

In the northeastern critical habitat, the Navy would conduct TORPEX activities. These activities would be conducted in August, September, and October as prescribed in a prior Endangered Species Act (ESA) Section 7 consultation with NMFS. Water depths in this area are less than the optimal depth for most ASW activities.

In summary, currently active sonar training does not occur in North Atlantic right whale critical habitat with the exception of object detection and navigation off shore Mayport, Florida and Kings Bay, Georgia; helicopter Anti-Submarine Warfare (ASW) offshore Mayport, Florida; and torpedo exercises (TORPEXs) in the northeast critical habitat during August, September, and October.

Description of Marine Mammals in the Area of the Specified Activities

There are 43 marine mammal species with possible or confirmed occurrence in the AFAST Study Area. As indicated in Table 4, there are 36 cetacean species (7 mysticetes and 29 odontocetes), six pinnipeds, and one sirenian (manatee). Six marine mammal species listed as federally endangered under the Endangered Species Act (ESA) and under the jurisdiction of NMFS occur in the AFAST Study Area: The North Atlantic right whale, humpback whale, sei whale, fin whale, blue whale, and sperm whale. Manatees are managed by the U.S. Fish and Wildlife Service and will not be addressed further here.

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Common Name	Scientific Name	ESA Status	Possible Location
Suborder Mysticeti (baleen whales)			
<i>Family Balaenidae (right whales)</i>			
North Atlantic Right Whale	<i>Eubalaena glacialis</i>	Endangered	East Coast
<i>Family Balaenopteridae (rorquals)</i>			
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered	East Coast
Minke whale	<i>Balaenoptera acutorostrata</i>		East Coast
Bryde's whale	<i>Balaenoptera edeni</i>		East Coast and Gulf of Mexico
Sei whale	<i>Balaenoptera borealis</i>	Endangered	East Coast
Fin whale	<i>Balaenoptera physalus</i>	Endangered	East Coast and Gulf of Mexico
Blue whale	<i>Balaenoptera musculus</i>	Endangered	East Coast
Suborder Odontoceti (toothed whales)			
<i>Family Physeteridae (sperm whale)</i>			
Sperm whale	<i>Physeter macrocephalus</i>	Endangered	East Coast and Gulf of Mexico
<i>Family Kogiidae</i>			
Pygmy sperm whale	<i>Kogia breviceps</i>		East Coast and Gulf of Mexico
Dwarf sperm whale	<i>Kogia sima</i>		East Coast and Gulf of Mexico
<i>Family Monodontidae (buluga and narwhal whales)</i>			
Beluga whale	<i>Delphinapterus leucas</i>		East Coast
<i>Family Ziphiidae (beaked whales)</i>			
Cuvier's beaked whale	<i>Ziphius cavirostris</i>		East Coast and Gulf of Mexico
True's beaked whale	<i>Mesoplodon mirus</i>		East Coast
Gervais' beaked whale	<i>Mesoplodon europaeus</i>		East Coast and Gulf of Mexico
Sowerby's beaked whale	<i>Mesoplodon bidens</i>		East Coast
Blainville's beaked whale	<i>Mesoplodon densirostris</i>		East Coast and Gulf of Mexico
Northern bottlenose whale	<i>Hyperoodon ampullatus</i>		East Coast
<i>Family Delphinidae (dolphins)</i>			
Rough-toothed dolphin	<i>Steno bredanensis</i>		East Coast and Gulf of Mexico
Common bottlenose dolphin	<i>Tursiops truncatus</i>		East Coast and Gulf of Mexico
Pantropical spotted dolphin	<i>Stenella attenuate</i>		East Coast and Gulf of Mexico
Atlantic spotted dolphin	<i>Stenella frontalis</i>		East Coast and Gulf of Mexico
Spinner dolphin	<i>Stenella longirostris</i>		East Coast and Gulf of Mexico
Clymene dolphin	<i>Stenella clymene</i>		East Coast and Gulf of Mexico
Striped dolphin	<i>Stenella coeruleoalba</i>		East Coast and Gulf of Mexico
Common dolphin	<i>Delphinus spp.</i>		East Coast
Fraser's dolphin	<i>Lagenodelphis hosei</i>		East Coast and Gulf of Mexico
Risso's dolphin	<i>Grampus griseus</i>		East Coast and Gulf of Mexico
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>		East Coast and Gulf of Mexico
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>		East Coast and Gulf of Mexico
Melon-headed whale	<i>Peponocephala electra</i>		East Coast and Gulf of Mexico
Pygmy killer whale	<i>Feresa attenuate</i>		East Coast and Gulf of Mexico
False killer whale	<i>Pseudorca crassidens</i>		East Coast and Gulf of Mexico
Killer whale	<i>Orcinus orca</i>		East Coast and Gulf of Mexico
Long-finned pilot whale	<i>Globicephala melas</i>		East Coast and Gulf of Mexico
Short-finned pilot whale	<i>Globicephala macrorhynchus</i>		East Coast and Gulf of Mexico
<i>Family Phocoenidae</i>			
Harbor porpoise	<i>Phocoena phocoena</i>		East Coast
Order Carnivora			
Suborder Pinnipedia			
<i>Family Phocidae (true seals)</i>			
Hooded seal	<i>Cystophora cristata</i>		East Coast
Harp seal	<i>Pagophilus groenlandica</i>		East Coast
Gray seal	<i>Halichoerus grypus</i>		East Coast
Harbor seal	<i>Phoca vitulina</i>		East Coast
Ringed seal	<i>Pusa hispida</i>		East Coast
Walrus	<i>Odobenus rosmarus</i>		East Coast
Order Sirenia			
<i>Family Trichechidae (manatees)</i>			
West Indian manatee	<i>Trichechus manatus</i>	Endangered	East Coast and Gulf of Mexico

Table 4. Species with possible or confirmed occurrence in the AFAST Study Area

The Navy has compiled information on the abundance, behavior, status and distribution, and vocalizations of marine mammal species in the AFAST Study Area waters from peer reviewed literature, the Navy Marine Resource Assessments, NMFS Stock Assessment Reports, and marine mammal surveys using acoustics or visual observations from aircraft or ships. This information may be viewed in the Navy's LOA application and/or the Navy's EIS for AFAST (see Availability). Additional information is available in NMFS Stock Assessment Reports, which may be viewed at: <http://www.nmfs.noaa.gov/pr/sars/species.htm>.

Neither the beluga whale nor ringed seals have stocks designated in the Northwest Atlantic Ocean or the Gulf of Mexico. The St. Lawrence estuary is at the southern limit of the distribution of the beluga whale (Lesage and Kingsley, 1998). Beluga distribution does not include the Gulf of Mexico or the southeastern Atlantic Coast and they are considered extralimital in the Northeast. The ringed seal has a circumpolar distribution throughout the Arctic Ocean, Hudson Bay, and Baltic and Bering seas (Reeves *et al.*, 2002b) and is expected only as far south as Newfoundland (Frost and Lowry, 1981). Based on their rare occurrence in the AFAST study area, the Navy and NMFS do not anticipate any take of ringed seals or beluga whales, and, therefore, they are not addressed further in this document.

Important Areas

Because the consideration of areas where marine mammals are known to selectively breed or calve/pup are important to both the negligible impact finding necessary for the issuance of an MMPA authorization and the need for NMFS to put forth the means of effecting the least practicable adverse impact paying particular attention to rookeries, mating grounds, and other areas of similar significance, we are emphasizing known important reproductive and feeding areas within this section.

Little is known about the breeding and calving behaviors of many of the marine mammals that occur in the AFAST Study Area. For rorquals (humpback whale, minke whale, Bryde's whale, sei whale, fin whale, and blue whale) and sperm whales, mating is generally thought to occur in tropical and sub-tropical waters between mid-winter and mid-summer in deep off-shore waters. Delphinids (Melon-headed Whale, Killer Whale, Pygmy Killer Whale, False Killer Whale, Pilot Whale, Common Dolphin, Atlantic Spotted

Dolphin, Clymene Dolphin, Pantropical Spotted Dolphin, Spinner Dolphin, Striped Dolphin, Rough-toothed Dolphin, Common Bottlenose Dolphin, Risso's Dolphin, Fraser's Dolphin, Atlantic White-sided Dolphin, White-beaked Dolphin) may mate within any area of their distribution throughout the year. For pinnipeds, mating and pupping typically occurs in coastal waters near northeast rookeries. With one notable exception, no specific breeding or calving/pupping areas have been identified in the AFAST Study Area for the species that occur there. However, critical habitat has been designated, pursuant to the Endangered Species Act (ESA), for the North Atlantic right whale.

North Atlantic Right Whale

Most North Atlantic right whale sightings follow a well-defined seasonal migratory pattern through several consistently utilized habitats (Winn *et al.*, 1986). It should be noted, however, that some individuals may be sighted in these habitats outside the typical time of year and that migration routes are poorly known (there may be a regular offshore component). The population migrates as two separate components, although some whales may remain in the feeding grounds throughout the winter (Winn *et al.*, 1986; Kenney *et al.*, 2001). Pregnant females and some juveniles migrate from the feeding grounds to the calving grounds off the southeastern United States in late fall to winter. The cow-calf pairs return northward in late winter to early spring. The majority of the right whale population leaves the feeding grounds for unknown habitats in the winter but returns to the feeding grounds coinciding with the return of the cow-calf pairs. Some individuals as well as cow-calf pairs can be seen through the fall and winter on the feeding grounds with feeding being observed (e.g., Sardi *et al.*, 2005).

During the spring through early summer, North Atlantic right whales are found on feeding grounds off the northeastern United States and Canada. Individuals may be found in Cape Cod Bay in February through April (Winn *et al.*, 1986; Hamilton and Mayo, 1990) and in the Great South Channel east of Cape Cod in April through June (Winn *et al.*, 1986; Kenney *et al.*, 1995). Right whales are found throughout the remainder of summer and into fall (June through November) on two feeding grounds in Canadian waters (Gaskin, 1987 and 1991), with peak abundance in August, September, and early October. The majority of summer/fall sightings of mother/calf pairs occur east of Grand

Manan Island (Bay of Fundy), although some pairs might move to other unknown locations (Schaeff *et al.*, 1993). Jeffreys Ledge appears to be important habitat for right whales, with extended whale residences; this area appears to be an important fall feeding area for right whales and an important nursery area during summer (Weinrich *et al.*, 2000). The second feeding area is off the southern tip of Nova Scotia in the Roseway Basin between Browns, Baccaro, and Roseway banks (Mitchell *et al.*, 1986; Gaskin, 1987; Stone *et al.*, 1988; Gaskin, 1991). The Cape Cod Bay and Great South Channel feeding grounds are formally designated as critical habitats under the ESA (Silber and Clapham, 2001).

During the winter (as early as November and through March), North Atlantic right whales may be found in coastal waters off North Carolina, Georgia, and northern Florida (Winn *et al.*, 1986). The waters off Georgia and northern Florida are the only known calving ground for western North Atlantic right whales; it is formally designated as a critical habitat under the ESA. Calving occurs from December through March (Silber and Clapham, 2001). On 1 January 2005, the first observed birth on the calving grounds was reported (Zani *et al.*, 2005). The majority of the population is not accounted for on the calving grounds, and not all reproductively active females return to this area each year (Kraus *et al.*, 1986a).

The coastal waters of the Carolinas are suggested to be a migratory corridor for the right whale (Winn *et al.*, 1986). The Southeast U.S. Coast Ground, consisting of coastal waters between North Carolina and northern Florida, was mainly a winter and early spring (January-March) right whaling ground during the late 1800s (Reeves and Mitchell, 1986). The whaling ground was centered along the coasts of South Carolina and Georgia (Reeves and Mitchell, 1986). An examination of sighting records from all sources between 1950 and 1992 found that wintering right whales were observed widely along the coast from Cape Hatteras, North Carolina, to Miami, Florida (Kraus *et al.*, 1993). Sightings off the Carolinas were comprised of single individuals that appeared to be transients (Kraus *et al.*, 1993). These observations are consistent with the hypothesis that the coastal waters of the Carolinas are part of a migratory corridor for the right whale (Winn *et al.*, 1986). Knowlton *et al.* (2002) analyzed sightings data collected in the mid-Atlantic from northern Georgia to southern New England and found that

the majority of right whale sightings occurred within approximately 56 km (30 NM) from shore. Until better information is available on the right whale's migratory corridor, it has been recommended that management considerations are needed for the coastal areas along the mid-Atlantic migratory corridor within 65 km (35 NM) from shore (Knowlton, 1997).

Critical habitat for the North Atlantic population of the North Atlantic right whale exists in portions of the JAX/CHASN and Northeast OPAREAs (Figures 4–1 and 4–2 of the Navy's Application). The following three areas occur in U.S. waters and were designated by NMFS as critical habitat in June 1994 (NMFS, 2005):

- Coastal Florida and Georgia (Sebastian Inlet, Florida, to the Altamaha River, Georgia),
- The Great South Channel, east of Cape Cod, and
- Cape Cod and Massachusetts Bays.

The northern critical habitat areas serve as feeding and nursery grounds, while the southern area from the mid-Georgia coast extending southward along Florida serves as calving grounds. The waters off Georgia and northern Florida are the only known calving ground for western North Atlantic right whales. A large portion of this habitat lies within the coastal waters of the JAX/CHASN OPAREA. The physical features correlated with the distribution of right whales in the southern critical habitat area provide an optimum environment for calving. For example, the bathymetry of the inner and nearshore middle shelf area minimizes the effect of strong winds and offshore waves, limiting the formation of large waves and rough water. The average temperature of critical habitat waters is cooler during the time right whales are present due to a lack of influence by the Gulf Stream and cool freshwater runoff from coastal areas. The water temperatures may provide an optimal balance between offshore waters that are too warm for nursing mothers to tolerate, yet not too cool for calves that may only have minimal fatty insulation. On the calving grounds, the reproductive females and calves are expected to be concentrated near the critical habitat in the JAX/CHASN OPAREA from December through April.

Humpback Whale

In the North Atlantic Ocean, humpbacks are found from spring through fall on feeding grounds that are located from south of New England to northern Norway (NMFS, 1991). The Gulf of Maine is one of the principal summer feeding grounds for humpback

whales in the North Atlantic. The largest numbers of humpback whales are present from mid-April to mid-November. Feeding locations off the northeastern United States include Stellwagen Bank, Jeffreys Ledge, the Great South Channel, the edges and shoals of Georges Bank, Cashes Ledge, Grand Manan Banks, the banks on the Scotian Shelf, the Gulf of St. Lawrence, and the Newfoundland Grand Banks (CETAP, 1982; Whitehead, 1982; Kenney and Winn, 1986; Weinrich *et al.*, 1997). Distribution in this region has been largely correlated to prey species and abundance, although behavior and bottom topography are factors in foraging strategy (Payne *et al.*, 1986; Payne *et al.*, 1990b). Humpbacks typically return to the same feeding areas each year. Feeding most often occurs in relatively shallow waters over the inner continental shelf and sometimes in deeper waters. Large multi-species feeding aggregations (including humpback whales) have been observed over the shelf break on the southern edge of Georges Bank (CETAP, 1982; Kenney and Winn, 1987) and in shelf break waters off the U.S. mid-Atlantic coast (Smith *et al.*, 1996).

Sperm Whale

The region of the Mississippi River Delta (Desoto Canyon) has been recognized for high densities of sperm whales and appears to represent an important calving and nursery area for these animals (Townsend, 1935; Collum and Fritts, 1985; Mullin *et al.*, 1994a; Wursig *et al.*, 2000; Baumgartner *et al.*, 2001; Davis *et al.*, 2002; Mullin *et al.*, 2004; Jochens *et al.*, 2006). Sperm whales typically exhibit a strong affinity for deep waters beyond the continental shelf, though in the area of the Mississippi Delta they also occur on the outer continental shelf break.

Marine Mammal Density Estimates

Density estimates for cetaceans were either modeled for each region (Northeast, Southeast, and GOMEX) using available line-transect survey data or derived in order of preference: (1) Through spatial models using line-transect survey data provided by NMFS; (2) using abundance estimates from Mullin and Fulling (2003), Fulling *et al.* (2003), and/or Mullin and Fulling (2004); (3) or based on the cetacean abundance estimates found in the most current NOAA stock assessment report (SAR) (Waring *et al.*, 2007). The Navy derived the densities the following way for each area:

- Northeast OPAREAs: The traditional line-transect methods used in the preliminary Northeast NODE

(DON, 2006c) and abundance estimates from the North Atlantic Right Whale Consortium (NARWC, 2006). Density estimates for pinnipeds in these OPAREAs were derived from abundance estimates found in the NOAA stock assessment report (Waring *et al.*, 2007) or from the scientific literature (Barlas, 1999).

- Southeast OPAREAs: Abundance estimates found in the NOAA stock assessment report (Waring *et al.*, 2007) or in Mullin and Fulling (2003).
- Gulf of Mexico OPAREAs:

Abundance estimates found in the NOAA stock assessment report (Waring *et al.*, 2007) based on Mullin and Fulling (2004).

Using the indicated data, the Navy was able to estimate densities for most species, by OPAREA (and sometimes in greater detail—like for the area around Mayport) and by season.

The detailed density estimate methods and results may be viewed in the Navy OPAREA Density Estimates (NODE) for the Northeast OPAREAS report (DON, 2007e), the NODE for the Southeast OPAREAS report (DON, 2007f), and the NODE for the GOMEX OPAREA report (DON, 2007g), which are available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS has also posted a summary of the density estimates on our Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>.

Brief Background on Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A summary is included below.

Sound is a wave of pressure variations propagating through a medium (for the sonar considered in this proposed rule, the medium is marine water). Pressure variations are created by compressing and relaxing the medium. Sound measurements can be expressed in two forms: intensity and pressure. Acoustic intensity is the average rate of energy transmitted through a unit area in a specified direction and is expressed in watts per square meter (W/m²). Acoustic intensity is rarely measured directly, it is derived from ratios of pressures; the standard reference pressure for underwater sound is 1 microPascal (μPa); for airborne sound, the standard reference pressure is 20 μPa (Richardson *et al.*, 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in decibels (dB). Decibel measurements represent the ratio between a measured pressure value

and a reference pressure value (in this case 1 μPa or, for airborne sound, 20 μPa). The logarithmic nature of the scale means that each 10 dB increase is a ten-fold increase in power (e.g., 20 dB is a 100-fold increase, 30 dB is a 1,000-fold increase). Humans perceive a 10-dB increase in noise as a doubling of sound level, or a 10 dB decrease in noise as a halving of sound level. The term “sound pressure level” implies a decibel measure and a reference pressure that is used as the denominator of the ratio. Throughout this document, NMFS uses 1 micropascal (denoted re: 1 μPa) as a standard reference pressure unless noted otherwise.

It is important to note that decibels underwater and decibels in air are not the same and cannot be directly compared. To estimate a comparison between sound in air and underwater, because of the different densities of air and water and the different decibel standards (i.e., reference pressures) in water and air, a sound with the same intensity (i.e., power) in air and in water would be approximately 63 dB quieter in air. Thus a sound that is 160 dB loud underwater would have the same approximate effective intensity as a sound that is 97 dB loud in air.

Sound frequency is measured in cycles per second, or Hertz (abbreviated Hz), and is analogous to musical pitch; high-pitched sounds contain high frequencies and low-pitched sounds contain low frequencies. Natural sounds in the ocean span a huge range of frequencies: from earthquake noise at 5 Hz to harbor porpoise clicks at 150,000 Hz (150 kHz). These sounds are so low or so high in pitch that humans cannot even hear them; acousticians call these infrasonic (typically below 20 Hz) and ultrasonic (typically above 20,000 Hz) sounds, respectively. A single sound may be made up of many different frequencies together. Sounds made up of only a small range of frequencies are called “narrowband”, and sounds with a broad range of frequencies are called “broadband”; explosives are an example of a broadband sound source and tactical sonars are an example of a narrowband sound source.

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Based on available behavioral data, audiograms derived using auditory evoked potential (AEP) techniques, anatomical modeling, and other data, Southall *et al.* (2007) designate “functional hearing groups” for marine mammals and estimate the lower and upper frequencies of

functional hearing of the groups. Further, the frequency range in which each groups hearing is estimated as being most sensitive is represented in the flat part of the M-weighting functions developed for each group. More specific data is available for certain species (Table 13a and b). The functional groups and the associated frequencies are indicated below:

- Low frequency cetaceans (13 species of mysticetes): functional hearing is estimated to occur between approximately 7 Hz and 22 kHz;
- Mid-frequency cetaceans (32 species of dolphins, six species of larger toothed whales, and 19 species of beaked and bottlenose whales): functional hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High frequency cetaceans (eight species of true porpoises, six species of river dolphins, Kogia, the franciscana, and four species of cephalorhynchids): functional hearing is estimated to occur between approximately 200 Hz and 180 kHz;
- Pinnipeds in Water: functional hearing is estimated to occur between approximately 75 Hz and 75 kHz, with the greatest sensitivity between approximately 700 Hz and 20 kHz.

Because ears adapted to function underwater are physiologically different from human ears, comparisons using decibel measurements in air would still not be adequate to describe the effects of a sound on a whale. When sound travels away from its source, its loudness decreases as the distance traveled (propagates) by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of that same sound a kilometer distant. Acousticians often refer to the loudness of a sound at its source (typically measured one meter from the source) as the source level and the loudness of sound elsewhere as the received level. For example, a humpback whale three kilometers from an airgun that has a source level of 230 dB may only be exposed to sound that is 160 dB loud, depending on how the sound propagates (in this example, it is spherical spreading). As a result, it is important not to confuse source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not

homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual sonar operations, crews will measure oceanic conditions, such as sea water temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

Metrics Used in This Document

This section includes a brief explanation of the two sound measurements (sound pressure level (SPL) and sound exposure level (SEL)) frequently used in the discussions of acoustic effects in this document.

SPL

Sound pressure is the sound force per unit area, and is usually measured in micropascals (μPa), where 1 Pa is the pressure resulting from a force of one newton exerted over an area of one square meter. SPL is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure level in underwater acoustics is 1 μPa , and the units for SPLs are dB re: 1 μPa .

$\text{SPL (in dB)} = 20 \log (\text{pressure} / \text{reference pressure})$

SPL is an instantaneous measurement and can be expressed as the peak, the peak-peak, or the root mean square (rms). Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square. SPL does not take the duration of a sound into account. SPL is the applicable metric used in the risk continuum, which is used to estimate behavioral harassment takes (see Level B Harassment Risk Function (Behavioral Harassment) Section).

SEL

SEL is an energy metric that integrates the squared instantaneous sound pressure over a stated time interval. The units for SEL are dB re: 1 $\mu\text{Pa}^2\text{-s}$.

$SEL = SPL + 10 \log(\text{duration in seconds})$

As applied to tactical sonar, the SEL includes both the SPL of a sonar ping and the total duration. Longer duration pings and/or pings with higher SPLs will have a higher SEL. If an animal is exposed to multiple pings, the SEL in each individual ping is summed to calculate the total SEL. The total SEL depends on the SPL, duration, and number of pings received. The thresholds that NMFS uses to indicate at what received level the onset of temporary threshold shift (TTS) and permanent threshold shift (PTS) in hearing are likely to occur are expressed in SEL.

Potential Effects of Specified Activities on Marine Mammals

Exposure to MFAS/HFAS

The Navy has requested authorization for the take of marine mammals that may occur incidental to training activities in the AFAST Study Area utilizing MFAS/HFAS or the IEER system, which includes an explosive sonobuoy. The Navy has analyzed the potential impacts to marine mammals from AFAST, including ship strike, entanglement in or direct strike by expended materials, ship noise, and others, and in consultation with NMFS as a cooperating agency for the AFAST EIS, has determined that take of marine mammals incidental to these non-acoustic components of AFAST is unlikely (see the Navy's LOA application and March addendum to the application) and, therefore, has not requested authorization for take of marine mammals that might occur incidental to these non-acoustic components. In this document, NMFS analyzes the potential effects on marine mammals from exposure to MFAS/HFAS and underwater detonations from the IEER.

For the purpose of MMPA authorizations, NMFS' effects assessments serve three primary purposes: (1) To put forth the permissible methods of taking within the context of MMPA Level B Harassment (behavioral harassment), Level A Harassment (injury), and mortality (i.e., identify the number and types of take that will occur); (2) to determine whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival); and (3) to determine whether the specified activity will have an

unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (however, there are no subsistence communities that would be affected in the AFAST Study Area, so this determination is inapplicable for AFAST).

More specifically, for activities involving active tactical sonar or underwater detonations, NMFS' analysis will identify the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), behavioral disturbance (that rises to the level of harassment), and social responses that would be classified as behavioral harassment or injury and/or would be likely to adversely affect the species or stock through effects on annual rates of recruitment or survival. In this section, we will focus qualitatively on the different ways that MFAS/HFAS and underwater explosive detonations (IEER) may affect marine mammals (some of which NMFS would not classify as harassment). Then, in the Estimated Take of Marine Mammals Section, NMFS will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify those effects.

In its April 14, 2008, Biological Opinion of the U.S. Navy's proposal to conduct four training exercises in the Cherry Point, Virginia Capes, and Jacksonville Range Complexes NMFS presented a conceptual model of the potential responses of endangered and threatened species upon being exposed to active sonar and the pathways by which those responses might affect the fitness of individual animals that have been exposed, which may then affect the reproduction and/or survival of those individuals. Literature supporting the framework, with examples drawn from many taxa (both aquatic and terrestrial) was included in the "Application of this Approach" and "Response Analyses" sections of that document (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>). This conceptual framework may also be used to describe the responses and pathways for non-endangered and non-threatened species and is included in the Biological Opinion of the U.S. Navy's proposal to conduct four training exercises in the Cherry Point, Virginia Capes, and Jacksonville Range Complexes.

Direct Physiological Effects

Based on the literature, there are two basic ways that MFAS/HFAS might directly result in physical trauma or damage: noise-induced loss of hearing sensitivity (more commonly-called "threshold shift") and acoustically mediated bubble growth. Separately, an animal's behavioral reaction to an acoustic exposure might lead to physiological effects that might ultimately lead to injury or death, which is discussed later in the Stranding section.

Threshold Shift (Noise-Induced Loss of Hearing)

When animals exhibit reduced hearing sensitivity (i.e., sounds must be louder for an animal to recognize them) following exposure to a sufficiently intense sound, it is referred to as a noise-induced threshold shift (TS). An animal can experience temporary threshold shift (TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (i.e., there is recovery), occurs in specific frequency ranges (i.e., an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced by only 6 dB or reduced by 30 dB). PTS is permanent (i.e., there is no recovery), but also occurs in a specific frequency range and amount as mentioned above for TTS.

The following physiological mechanisms are thought to play a role in inducing auditory TSs: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output (Southall *et al.*, 2007). The amplitude, duration, frequency, temporal pattern, and energy distribution of sound exposure all affect the amount of associated TS and the frequency range in which it occurs. As amplitude and duration of sound exposure increase, so, generally, does the amount of TS, along with the recovery time. For continuous sounds, exposures of equal energy (the same SEL) will lead to approximately equal effects. For intermittent sounds, less TS will occur than from a continuous exposure with the same energy (some recovery will occur between intermittent exposures) (Kryter *et al.*, 1966; Ward, 1997). For example, one short but loud (higher SPL) sound

exposure may induce the same impairment as one longer but softer sound, which in turn may cause more impairment than a series of several intermittent softer sounds with the same total energy (Ward, 1997). Additionally, though TTS is temporary, very prolonged exposure to sound strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter, 1985) (although in the case of MFAS/HFAS, animals are not expected to be exposed to levels high enough or durations long enough to result in PTS).

PTS is considered auditory injury (Southall *et al.*, 2007). Irreparable damage to the inner or outer cochlear hair cells may cause PTS, however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.*, 2007).

Although the published body of scientific literature contains numerous theoretical studies and discussion papers on hearing impairments that can occur with exposure to a loud sound, only a few studies provide empirical information on the levels at which noise-induced loss in hearing sensitivity occurs in nonhuman animals. For cetaceans, published data are limited to the captive bottlenose dolphin and beluga (Finneran *et al.*, 2000, 2002b, 2005a; Schlundt *et al.*, 2000; Nachtigall *et al.*, 2003, 2004). For pinnipeds in water, data are limited to Kastak *et al.*'s measurement of TTS in one harbor seal, one elephant seal, and one California sea lion.

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (i.e., recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for

successful mother/calf interactions could have more serious impacts. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, reduced hearing sensitivity as a simple function of development and aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.*, 2007), so we can infer that strategies exist for coping with this condition to some degree, though likely not without cost. There is no empirical evidence that exposure to MFAS/HFAS can cause PTS in any marine mammals; instead the probability of PTS has been inferred from studies of TTS (see Richardson *et al.*, 1995).

Acoustically Mediated Bubble Growth

One theoretical cause of injury to marine mammals is rectified diffusion (Crum and Mao, 1996), the process of increasing the size of a bubble by exposing it to a sound field. This process could be facilitated if the environment in which the ensonified bubbles exist is supersaturated with gas. Repetitive diving by marine mammals can cause the blood and some tissues to accumulate gas to a greater degree than is supported by the surrounding environmental pressure (Ridgway and Howard, 1979). The deeper and longer dives of some marine mammals (for example, beaked whales) are theoretically predicted to induce greater supersaturation (Houser *et al.*, 2001b). If rectified diffusion were possible in marine mammals exposed to high-level sound, conditions of tissue supersaturation could theoretically speed the rate and increase the size of bubble growth. Subsequent effects due to tissue trauma and emboli would presumably mirror those observed in humans suffering from decompression sickness.

It is unlikely that the short duration of sonar pings would be long enough to drive bubble growth to any substantial size, if such a phenomenon occurs. However, an alternative but related hypothesis has also been suggested: Stable bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. In such a scenario the marine mammal would need to be in a gas-supersaturated state for a long enough period of time for bubbles to become of a problematic size.

Yet another hypothesis (decompression sickness) has speculated that rapid ascent to the

surface following exposure to a startling sound might produce tissue gas saturation sufficient for the evolution of nitrogen bubbles (Jepson *et al.*, 2003; Fernandez *et al.*, 2005). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. Collectively, these hypotheses can be referred to as "hypotheses of acoustically mediated bubble growth."

Although theoretical predictions suggest the possibility for acoustically mediated bubble growth, there is considerable disagreement among scientists as to its likelihood (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Crum and Mao (1996) hypothesized that received levels would have to exceed 190 dB in order for there to be the possibility of significant bubble growth due to supersaturation of gases in the blood (i.e., rectified diffusion). More recent work conducted by Crum *et al.* (2005) demonstrated the possibility of rectified diffusion for short duration signals, but at SELs and tissue saturation levels that are highly improbable to occur in diving marine mammals. To date, Energy Levels (ELs) predicted to cause *in vivo* bubble formation within diving cetaceans have not been evaluated (NOAA, 2002b). Although it has been argued that traumas from some recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003), there is no conclusive evidence of this. However, Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005) concluded that *in vivo* bubble formation, which may be exacerbated by deep, long-duration, repetitive dives may explain why beaked whales appear to be particularly vulnerable to sonar exposures. Further investigation is needed to further assess the potential validity of these hypotheses. More information regarding hypotheses that attempt to explain how behavioral responses to MFAS/HFAS can lead to strandings is included in the Behaviorally Mediated Bubble Growth Section, after the summary of strandings.

Acoustic Masking

Marine mammals use acoustic signals for a variety of purposes, which differ among species, but include communication between individuals, navigation, foraging, reproduction, and learning about their environment (Erbe and Farmer, 2000, Tyack, 2000). Masking, or auditory interference, generally occurs when sounds in the environment are louder than and of a

similar frequency to, auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals that are trying to receive acoustic information about their environment, including sounds from other members of their species, predators, prey, and sounds that allow them to orient in their environment. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations.

The extent of the masking interference depends on the spectral, temporal, and spatial relationships between the signals an animal is trying to receive and the masking noise, in addition to other factors. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Richardson *et al.* (1995b) argued that the maximum radius of influence of an industrial noise (including broadband low frequency sound transmission) on a marine mammal is the distance from the source to the point at which the noise can barely be heard. This range is determined by either the hearing sensitivity of the animal or the background noise level present. Industrial masking is most likely to affect some species' ability to detect communication calls and natural sounds (i.e., surf noise, prey noise, etc.; Richardson *et al.*, 1995).

The echolocation calls of toothed whales are subject to masking by high frequency sound. Human data indicate low-frequency sound can mask high-frequency sounds (i.e., upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (e.g., adjustments in echolocation call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high-frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.*, 1980).

As mentioned previously, the functional hearing ranges of mysticetes, odontocetes, and pinnipeds underwater all encompass the frequencies of the sonar sources used in the Navy's MFAS/HFAS training exercises. Additionally, in almost all species, vocal repertoires

span across the frequencies of these sonar sources used by the Navy. The closer the characteristics of the masking signal to the signal of interest, the more likely masking is to occur. For hull-mounted sonar—which accounts for the largest part of the takes of marine mammals (because of the source strength and number of hours it's conducted), the pulse length and duty cycle of the MFAS/HFAS signal (~ 1 second pulse twice a minute) makes it less likely that masking will occur as a result.

Impaired Communication

In addition to making it more difficult for animals to perceive acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the "active space" of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.*, 2004; Lohr *et al.*, 2003). Animals are also aware of environment conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.*, 2004; Dooling, 2004; Marten and Marler, 1977; Patricelli *et al.*, 2006). Most animals that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.*, 2004; Patricelli *et al.*, 2006). Vocalizing animals can make one or more of the following adjustments to their vocalizations: Adjust the frequency structure; adjust the amplitude; adjust temporal structure; or adjust temporal delivery (see Biological Opinion).

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments remain unknown, like most

other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.*, 2006). For example, vocalizing more loudly in noisy environments may have energetic costs that decrease the net benefits of vocal adjustment and alter a bird's energy budget (Brumm, 2004; Wood and Yezerinac, 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

Stress Responses

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg, 2000; Sapolsky *et al.*, 2005; Seyle, 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: Behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune response.

In the case of many stressors, an animal's first and most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical "fight or flight" response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with "stress." These responses have a relatively short duration and may or may not have significant long-term effect on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine or sympathetic nervous systems; the system that has received the most study has been the hypothalamus-pituitary-adrenal system (also known as the HPA axis in mammals or the hypothalamus-pituitary-interrenal axis in fish and some reptiles). Unlike stress responses associated with the autonomic nervous system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have

been implicated in failed reproduction (Moberg, 1987; Rivier, 1995) and altered metabolism (Elasser *et al.*, 2000), reduced immune competence (Blecha, 2000) and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.*, 2004) have been equated with stress for many years.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic function, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called "distress" (*sensu* Seyle 1950) or "allostatic loading" (*sensu* McEwen and Wingfield, 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiment; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been documented in both laboratory and free-living animals (for examples see, Holberton *et al.*, 1996; Hood *et al.*, 1998; Jessop *et al.*, 2003; Krausman *et al.*, 2004; Lankford *et al.*, 2005; Reneerkens *et al.*, 2002; Thompson and Hamer, 2000). Although no information has been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds, studies of other marine animals and terrestrial animals would lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as "distress" upon exposure to high

frequency, mid-frequency and low-frequency sounds.

For example, Jansen (1998) reported on the relationship between acoustic exposures and physiological responses that are indicative of stress responses in humans (for example, elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimper *et al.* (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.* (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.* (2004a, 2004b) identified noise-induced physiological transient stress responses in hearing-specialist fish (*i.e.*, goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress responses (Moberg, 2000), we also assume that stress responses are likely to persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

Behavioral Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic

event. An animal's prior experience with a sound or sound source effects whether it is less likely (habituation) or more likely (sensitization) to respond to certain sounds in the future (animals can also be innately pre-disposed to respond to certain sounds in certain ways) (Southall *et al.*, 2007). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), similarity of a sound to biologically relevant sounds in the animal's environment (*i.e.*, calls of predators, prey, or conspecifics), and familiarity of the sound may effect the way an animal responds to the sound (Southall *et al.*, 2007). Individuals (of different age, gender, reproductive status, etc.) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (*i.e.*, proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone.

Exposure of marine mammals to sound sources can result in (but is not limited to) the following observable responses: Increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent); and, in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.*, 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson and others in 1995. A more recent review (Nowacek *et al.*, 2007) addresses studies conducted since 1995 and focuses on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. The following sub-sections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed. Estimates of the types of behavioral responses that could occur for a given sound exposure should be

determined from the literature that is available for each species, or extrapolated from closely related species when no information exists.

Flight Response—A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996). Flight responses have been speculated as being a component of marine mammal strandings associated with sonar activities (Evans and England, 2001).

Response to Predator—Evidence suggests that at least some marine mammals have the ability to acoustically identify potential predators. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by certain groups of killer whales, but not others. The seals discriminate between the calls of threatening and non-threatening killer whales (Deecke *et al.*, 2002), a capability that should increase survivorship while reducing the energy required for attending to and responding to all killer whale calls. The occurrence of masking or hearing impairment provides a means by which marine mammals may be prevented from responding to the acoustic cues produced by their predators. Whether or not this is a possibility depends on the duration of the masking/hearing impairment and the likelihood of encountering a predator during the time that predator cues are impeded.

Diving—Changes in dive behavior can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive. Variations in dive behavior may reflect interruptions in biologically significant activities (e.g., foraging) or they may be of little biological significance. Variations in dive behavior may also expose an animal to potentially harmful conditions (e.g., increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Nowacek *et al.* (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship strike.

However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Conversely, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating interpretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.*, 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

Due to past incidents of beaked whale strandings associated with sonar operations, feedback paths are provided between avoidance and diving and indirect tissue effects. This feedback accounts for the hypothesis that variations in diving behavior and/or avoidance responses can possibly result in nitrogen tissue supersaturation and nitrogen off-gassing, possibly to the point of deleterious vascular bubble formation (Jepson *et al.*, 2003).

Foraging—Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (e.g., bubble nets or sediment plumes), or changes in dive behavior. Noise from seismic surveys was not found to impact the feeding behavior in western grey whales off the coast of Russia (Yazvenko *et al.*, 2007) and sperm whales engaged in foraging dives did not abandon dives when exposed to distant signatures of seismic airguns (Madsen *et al.*, 2006). Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.*, 2001), whereas five out of six North Atlantic right whales exposed to an acoustic

alarm interrupted their foraging dives (Nowacek *et al.*, 2004). Although the received sound pressure level at the animals was similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. A determination of whether foraging disruptions incur fitness consequences will require information on or estimates of the energetic requirements of the individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Breathing—Variations in respiration naturally vary with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.*, 2007). Studies with captive harbor porpoises showed increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.*, 2001; Kastelein *et al.*, 2006a) and emissions for underwater data transmission (Kastelein *et al.*, 2005). However, exposure of the same acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.*, 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Social relationships—Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Disruption of social relationships therefore depends on the disruption of other behaviors (e.g., caused avoidance, masking, etc.) and no specific overview is provided here. However, social disruptions must be considered in context of the relationships that are affected. Long-term disruptions of mother/calf pairs or mating displays have the potential to affect the growth and survival or reproductive effort/success of individuals, respectively.

Vocalizations (also see Masking Section)—Vocal changes in response to anthropogenic noise can occur across

the repertoire of sound production modes used by marine mammals, such as whistling, echolocation click production, calling, and singing. Changes may result in response to a need to compete with an increase in background noise or may reflect an increased vigilance or startle response. For example, in the presence of low-frequency active sonar, humpback whales have been observed to increase the length of their "songs" (Miller *et al.*, 2000; Frstrup *et al.*, 2003), possibly due to the overlap in frequencies between the whale song and the low-frequency active sonar. A similar compensatory effect for the presence of low frequency vessel noise has been suggested for right whales; right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.*, 2007). Killer whales off the northwestern coast of the United States have been observed to increase the duration of primary calls once a threshold in observing vessel density (e.g., whale watching) was reached, which has been suggested as a response to increased masking noise produced by the vessels (Foote *et al.*, 2004). In contrast, both sperm and pilot whales potentially ceased sound production during the Heard Island feasibility test (Bowles *et al.*, 1994), although it cannot be absolutely determined whether the inability to acoustically detect the animals was due to the cessation of sound production or the displacement of animals from the area.

Avoidance—Avoidance is the displacement of an individual from an area as a result of the presence of a sound. Richardson *et al.* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. It is qualitatively different from the flight response, but also differs in the magnitude of the response (i.e., directed movement, rate of travel, etc.). Oftentimes avoidance is temporary, and animals return to the area once the noise has ceased. Longer term displacement is possible, however, which can lead to changes in abundance or distribution patterns of the species in the affected region if they do not become acclimated to the presence of the sound (Blackwell *et al.*, 2004; Bejder *et al.*, 2006; Teilmann *et al.*, 2006). Acute avoidance responses have been observed in captive porpoises and pinnipeds exposed to a number of different sound sources (Kastelein *et al.*, 2001; Finneran *et al.*, 2003; Kastelein *et al.*, 2006a; Kastelein *et al.*, 2006b). Short term avoidance of seismic surveys, low

frequency emissions, and acoustic deterrents has also been noted in wild populations of odontocetes (Bowles *et al.*, 1994; Goold, 1996; 1998; Stone *et al.*, 2000; Morton and Symonds, 2002) and to some extent in mysticetes (Gailey *et al.*, 2007), while longer term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to be due to the presence of chronic vessel noise (Haviland-Howell *et al.*, 2007; Miksis-Olds *et al.*, 2007).

Orientation—A shift in an animal's resting state or an attentional change via an orienting response represent behaviors that would be considered mild disruptions if occurring alone. As previously mentioned, the responses may co-occur with other behaviors; for instance, an animal may initially orient toward a sound source, and then move away from it. Thus, any orienting response should be considered in context of other reactions that may occur.

There are few empirical studies of avoidance responses of free-living cetaceans to mid-frequency sonars. Much more information is available on the avoidance responses of free-living cetaceans to other acoustic sources, such as seismic airguns and low frequency tactical sonar, than mid-frequency active sonar.

Behavioral Responses (Southall et al. (2007))

Southall *et al.* (2007) reports the results of the efforts of a panel of experts in acoustic research from behavioral, physiological, and physical disciplines that convened and reviewed the available literature on marine mammal hearing and physiological and behavioral responses to human-made sound with the goal of proposing exposure criteria for certain effects. This peer-reviewed compilation of literature is very valuable, though Southall *et al.* (2007) note that not all data are equal, some have poor statistical power, insufficient controls, and/or limited information on received levels, background noise, and other potentially important contextual variables—such data were reviewed and sometimes used for qualitative illustration but were not included in the quantitative analysis for the criteria recommendations. All of the studies considered, however, contain an estimate of the received sound level when the animal exhibited the indicated response.

In the Southall *et al.* (2007) publication, for the purposes of analyzing responses of marine mammals to anthropogenic sound and developing criteria, the authors differentiate

between single pulse sounds, multiple pulse sounds, and non-pulse sounds. MFAS/HFAS sonar is considered a non-pulse sound. Southall *et al.* (2007) summarize the studies associated with low-frequency, mid-frequency, and high-frequency cetacean and pinniped responses to non-pulse sounds, based strictly on received level, in Appendix C of their article (incorporated by reference and summarized in the three paragraphs below).

The studies that address responses of low frequency cetaceans to non-pulse sounds include data gathered in the field and related to several types of sound sources (of varying similarity to MFAS/HFAS) including: Vessel noise, drilling and machinery playback, low-frequency M-sequences (sine wave with multiple phase reversals) playback, tactical low-frequency active sonar playback, drill ships, Acoustic Thermometry of Ocean Climate (ATOC) source, and non-pulse playbacks. These studies generally indicate no (or very limited) responses to received levels in the 90 to 120 dB re: 1 μ Pa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB range. As mentioned earlier, though, contextual variables play a very important role in the reported responses and the severity of effects is not linear when compared to received level. Also, few of the laboratory or field datasets had common conditions, behavioral contexts or sound sources, so it is not surprising that responses differ.

The studies that address responses of mid-frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: Pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MFAS, and non-pulse bands and tones. Southall *et al.* (2007) were unable to come to a clear conclusion regarding the results of these studies. In some cases, animals in the field showed significant responses to received levels between 90 and 120 dB, while in other cases these responses were not seen in the 120 to 150 dB range. The disparity in results was likely due to contextual variation and the differences between the results in the field and laboratory data (animals typically responded at lower levels in the field).

The studies that address responses of high frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS)

including: Pingers, AHDs, and various laboratory non-pulse sounds. All of these data were collected from harbor porpoises. Southall *et al.* (2007) concluded that the existing data indicate that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (~90–120 dB), at least for initial exposures. All recorded exposures above 140 dB induced profound and sustained avoidance behavior in wild harbor porpoises (Southall *et al.*, 2007). Rapid habituation was noted in some but not all studies. There is no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises are.

The studies that address the responses of pinnipeds in water to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: AHDs, ATOC, various non-pulse sounds used in underwater data communication; underwater drilling, and construction noise. Few studies exist with enough information to include them in the analysis. The

limited data suggested that exposures to non-pulse sounds between 90 and 140 dB generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In addition to summarizing the available data, the authors of Southall *et al.* (2007) developed a severity scaling system with the intent of ultimately being able to assign some level of biological significance to a response. Following is a summary of their scoring system; a comprehensive list of the behaviors associated with each score may be found in the report:

- 0–3 (Minor and/or brief behaviors) includes, but is not limited to: no response; minor changes in speed or locomotion (but with no avoidance); individual alert behavior; minor cessation in vocal behavior; minor changes in response to trained behaviors (in laboratory).

- 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival) includes, but is not limited to: moderate changes in speed, direction, or dive profile; brief shift in group distribution; prolonged cessation or modification of vocal

behavior (duration > duration of sound), minor or moderate individual and/or group avoidance of sound; brief cessation of reproductive behavior; or refusal to initiate trained tasks (in laboratory).

- 7–9 (Behaviors considered likely to affect the aforementioned vital rates) includes, but is not limited to: Extensive or prolonged aggressive behavior; moderate, prolonged or significant separation of females and dependent offspring with disruption of acoustic reunion mechanisms; long-term avoidance of an area; outright panic, stampede, stranding; threatening or attacking sound source (in laboratory).

In Table 5 we have summarized the scores that Southall *et al.* (2007) assigned to the papers that reported behavioral responses of low-frequency cetaceans, mid-frequency cetaceans, and pinnipeds in water to non-pulse sounds. This table is included simply to summarize the findings of the studies and opportunistic observations (all of which were capable of estimating received level) that Southall *et al.* (2007) compiled in the effort to develop acoustic criteria.

Response Score	Received RMS Sound Pressure Level (dB re: 1 μ Pa)											
	80 to < 90	90 to < 100	100 to < 110	110 to < 120	120 to < 130	130 to < 140	140 to < 150	150 to < 160	160 to < 170	170 to < 180	180 to < 190	190 to < 200
9												
8		M	M		M		M				M	M
7						L	L					
6	H	L/H	L/P/H	L/M/H	L/M/H	L	L/H	H	M/H	M		
5			H	H	M							
4				L/M	L/M/P	P	L					
3		M	L/M	L/M	M/P	P						
2			L	L/M	L	L						
1			M	M	M							
0	L/H/P	L/H/P	L/M/H	L/M/H/P	L/M/H/P	L	M				M	M

Table 5. Data compiled from three tables from Southall *et al.* (2007) indicating when marine mammals (low-frequency cetaceans = L, mid-frequency cetaceans = M, high frequency cetaceans = H, and pinnipeds = P) were reported as having a behavioral response of the indicated severity to a non-pulse sound of the indicated received level. As discussed in the text, responses are highly variable and context specific.

Potential Effects of Behavioral Disturbance

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, etc.) of an animal (see Figure 1). There is little marine mammal data quantitatively relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exists for terrestrial species to which we

can draw comparisons for marine mammals.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called "attentional capture" occurs when a stimulus (usually a stimulus that an

animal is not concentrating on or attending to) "captures" an animal's attention. This shift in attention can occur consciously or unconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007). Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a "watch and wait" posture, or treat the stimulus as a disturbance

and respond accordingly, which includes scanning for the source of the stimulus or “vigilance” (Cowlshaw *et al.*, 2004).

Vigilance is normally an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time: when animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging. These costs have been documented best in foraging animals, where vigilance has been shown to substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.*, 2002).

Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (for example, multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (for example, when they are giving birth or accompanied by a calf). Most of the published literature, however, suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. For example, bighorn sheep and Dall’s sheep dedicated more time to being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001; Stockwell *et al.*, 1991).

Several authors have established that long-term and intense disturbance stimuli can cause population declines by reducing the body condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.*, 1996; Madsen, 1994; White, 1983). For example, Madsen (1994) reported that pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success rate compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17 percent reproductive success rate. Similar reductions in reproductive success have been reported for mule deer (*Odocoileus hemionus*) disturbed by all-terrain vehicles (Yarmoloy *et al.*, 1988), caribou disturbed by seismic exploration blasts (Bradshaw *et al.*, 1998), caribou disturbed by low-elevation military jet-fights (Luick *et al.*, 1996), and caribou disturbed by low-elevation jet flights (Harrington and Veitch, 1992). Similarly, a study of elk

(*Cervus elaphus*) that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Alldredge, 2000).

The primary mechanism by which increased vigilance and disturbance appear to affect the fitness of individual animals is by disrupting an animal’s time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal’s activity rate and energy demand). For example, a study of grizzly bears (*Ursus horribilis*) reported that bears disturbed by hikers reduced their energy intake by an average of 12 kcal/min (50.2×10^3 kJ/min), and spent energy fleeing or acting aggressively toward hikers (White *et al.*, 1999).

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

Stranding and Mortality

When a live or dead marine mammal swims or floats onto shore and becomes “beached” or incapable of returning to sea, the event is termed a “stranding” (Geraci *et al.*, 1999; Perrin and Geraci, 2002; Geraci and Lounsbury, 2005; National Marine Fisheries Service, 2007p). The legal definition for a stranding within the United States is that (A) “a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and is unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance.” (16 U.S.C. 1421h).

Marine mammals are known to strand for a variety of reasons, such as infectious agents, biotoxins, or

starvation, fishery interaction, ship strike, unusual oceanographic or weather events, sound exposure, or combinations of these stressors sustained concurrently or in series. However, the cause or causes of most strandings are unknown (Geraci *et al.*, 1976; Eaton, 1979; Odell *et al.*, 1980; Best, 1982). Numerous studies suggest that the physiology, behavior, habitat relationships, age, or condition of cetaceans may cause them to strand or might pre-dispose them the strand when exposed to another phenomenon. These suggestions are consistent with the conclusions of numerous other studies that have demonstrated that combinations of dissimilar stressors commonly combine to kill an animal or dramatically reduce its fitness, even though one exposure without the other does not produce the same result (Chroussos, 2000; Creel, 2005; DeVries *et al.*, 2003; Fair and Becker, 2000; Foley *et al.*, 2001; Moberg, 2000; Relyea, 2005a; 2005b, Romero, 2004; Sih *et al.*, 2004).

Several sources have published lists of mass stranding events of cetaceans during attempts to identify relationships between those stranding events and military sonar (Hildebrand, 2004; IWC, 2005; Taylor *et al.*, 2004). For example, based on a review of stranding records between 1960 and 1995, the International Whaling Commission (2005) identified ten mass stranding events of Cuvier’s beaked whales that had been reported and one mass stranding of four Baird’s beaked whale (*Berardius bairdii*). The IWC concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, seven had been coincident with the use of tactical mid-frequency sonar, one of those seven had been associated with the use of tactical low-frequency sonar, and the remaining stranding event had been associated with the use of seismic airguns.

Most of the stranding events reviewed by the International Whaling Commission involved beaked whales. A mass stranding of Cuvier’s beaked whales in the eastern Mediterranean Sea occurred in 1996 (Franzis, 1998) and mass stranding events involving Gervais’ beaked whales, Blainville’s beaked whales, and Cuvier’s beaked whales occurred off the coast of the Canary Islands in the late 1980s (Simmonds and Lopez-Jurado, 1991). The stranding events that occurred in the Canary Islands and Kyprissiakos Gulf in the late 1990s and the Bahamas in 2000 have been the most intensively-studied mass stranding events and have been associated with naval maneuvers involving the use of tactical sonar.

Between 1960 and 2006, 48 strandings (68 percent) involved beaked whales, 3 (4 percent) involved dolphins, and 14 (20 percent) involved whale species. Cuvier's beaked whales were involved in the greatest number of these events (48 or 68 percent), followed by sperm whales (7 or 10 percent), and Blainville's and Gervais' beaked whales (4 each or 6 percent). Naval activities that might have involved active sonar are reported to have coincided with 9 (13 percent) or 10 (14 percent) of those stranding events. Between the mid-1980s and 2003 (the period reported by the International Whaling Commission), we identified reports of 44 mass cetacean stranding events of which at least 7 were coincident with naval exercises that were using mid-frequency sonar.

Strandings Associated With MFAS

Over the past 12 years, there have been five stranding events coincident with military mid-frequency sonar use in which exposure to sonar is believed to have been a contributing factor: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). A number of other stranding events coincident with the operation of mid-frequency sonar including the death of beaked whales or other species (minke whales, dwarf sperm whales, pilot whales) have been reported, however, the majority have not been investigated to the degree necessary to determine the cause of the stranding.

Greece (1996)

Twelve Cuvier's beaked whales stranded atypically (in both time and space) along a 38.2-kilometer strand of the coast of the Kyprissiakos Gulf on May 12 and 13, 1996 (Frantzis, 1998). From May 11 through May 15, the NATO research vessel Alliance was conducting sonar tests with signals of 600 Hz and 3 kHz and source levels of 228 and 226 dB re: 1μPa, respectively (D'Amico and Verboom, 1998; D'Spain *et al.*, 2006). The timing and the location of the testing encompassed the time and location of the whale strandings (Frantzis, 1998).

Necropsies of eight of the animals were performed but were limited to basic external examination and sampling of stomach contents, blood, and skin. No ears or organs were collected, and no histological samples were preserved. No apparent abnormalities or wounds were found (Frantzis, 2004). Examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding.

Photos were taken soon after their death (Frantzis, 2004). Stomach contents contained the flesh of cephalopods, indicating that feeding had recently taken place (Frantzis, 1998).

All available information regarding the conditions associated with this stranding event were compiled, and many potential causes were examined including major pollution events, prominent tectonic activity, unusual physical or meteorological events, magnetic anomalies, epizootics, and conventional military activities (International Council for the Exploration of the Sea, 2005a). However, none of these potential causes coincided in time or space with the mass stranding, or could explain its characteristics (International Council for the Exploration of the Sea, 2005a). The robust condition of the animals, plus the recent stomach contents, is inconsistent with pathogenic causes (Frantzis, 2004). In addition, environmental causes can be ruled out as there were no unusual environmental circumstances or events before or during this time period and within the general proximity (Frantzis, 2004).

It was determined that because of the rarity of this mass stranding of Cuvier's beaked whales in the Kyprissiakos Gulf (first one in history), the probability for the two events (the military exercises and the strandings) to coincide in time and location, while being independent of each other, was extremely low (Frantzis, 1998). However, because full necropsies had not been conducted, and no abnormalities were noted, the cause of the strandings could not be precisely determined (Cox *et al.*, 2006). The analysis of this stranding event provided support for, but no clear evidence for, the cause-and-effect relationship of tactical sonar training activities and beaked whale strandings (Cox *et al.*, 2006).

Bahamas (2000)

NMFS and the Navy prepared a joint report addressing the multi-species stranding in the Bahamas in 2000, which took place within 24 hours of U.S. Navy ships using MFAS as they passed through the Northeast and Northwest Providence Channels on March 15–16, 2000. The ships, which operated both AN/SQS–53C and AN/SQS–56, moved through the channel while emitting sonar pings approximately every 24 seconds. Of the 17 cetaceans that stranded over a 36-hr period (Cuvier's beaked whales, Blainville's beaked whales, Minke whales, and a spotted dolphin), seven animals died on the beach (5 Cuvier's beaked whales, 1 Blainville's beaked

whale, and the spotted dolphin), while the other 10 were returned to the water alive (though their ultimate fate is unknown).

Necropsies were performed on five of the stranded beaked whales. All five necropsied beaked whales were in good body condition, showing no signs of infection, disease, ship strike, blunt trauma, or fishery related injuries, and three still had food remains in their stomachs. Auditory structural damage was discovered in four of the whales, specifically bloody effusions or hemorrhaging around the ears. Bilateral intracochlear and unilateral temporal region subarachnoid hemorrhage, with blood clots in the lateral ventricles, were found in two of the whales. Three of the whales had small hemorrhages in their acoustic fats (located along the jaw and in the melon).

A comprehensive investigation was conducted and all possible causes of the stranding event were considered, whether they seemed likely at the outset or not. Based on the way in which the strandings coincided with ongoing naval activity involving tactical MFAS use, in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concluded that MFAS aboard U.S. Navy ships that were in use during the sonar exercise in question were the most plausible source of this acoustic or impulse trauma to beaked whales. This sound source was active in a complex environment that included the presence of a surface duct, unusual and steep bathymetry, a constricted channel with limited egress, intensive use of multiple, active sonar units over an extended period of time, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these sonars. The investigation team concluded that the cause of this stranding event was the confluence of the Navy MFAS and these contributory factors working together, and further recommended that the Navy avoid operating MFAS in situations where these five factors would be likely to occur. This report does not conclude that all five of these factors must be present for a stranding to occur, nor that beaked whales are the only species that could potentially be affected by the confluence of the other factors. Based on this, NMFS believes that the operation of MFAS in situations where surface ducts exist, or in marine environments defined by steep bathymetry and/or constricted channels may increase the likelihood of producing a sound field with the potential to cause cetaceans

(especially beaked whales) to strand, and therefore, suggests the need for increased vigilance while operating MFAS in these areas, especially when beaked whales (or potentially other deep divers) are likely present.

Madeira, Spain (2000)

From May 10–14, 2000, three Cuvier's beaked whales were found atypically stranded on two islands in the Madeira archipelago, Portugal (Cox *et al.*, 2006). A fourth animal was reported floating in the Madeiran waters by fisherman but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries 80 warships, took place in Portugal during May 2–15, 2000.

The bodies of the three stranded whales were examined post mortem (Woods Hole Oceanographic Institution, 2005), though only one of the stranded whales was fresh enough (24 hours after stranding) to be necropsied (Cox *et al.*, 2006). Results from the necropsy revealed evidence of hemorrhage and congestion in the right lung and both kidneys (Cox *et al.*, 2006). There was also evidence of intercochlear and intracranial hemorrhage similar to that which was observed in the whales that stranded in the Bahamas event (Cox *et al.*, 2006). There were no signs of blunt trauma, and no major fractures (Woods Hole Oceanographic Institution, 2005). The cranial sinuses and airways were found to be clear with little or no fluid deposition, which may indicate good preservation of tissues (Woods Hole Oceanographic Institution, 2005).

Several observations on the Madeira stranded beaked whales, such as the pattern of injury to the auditory system, are the same as those observed in the Bahamas strandings. Blood in and around the eyes, kidney lesions, pleural hemorrhages, and congestion in the lungs are particularly consistent with the pathologies from the whales stranded in the Bahamas, and are consistent with stress and pressure related trauma. The similarities in pathology and stranding patterns between these two events suggest that a similar pressure event may have precipitated or contributed to the strandings at both sites (Woods Hole Oceanographic Institution, 2005).

Even though no definitive causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): Exercises were conducted in areas of at

least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 (1,000–6,000 m) fathoms occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships were operating around Madeira, though it is not known if MFA sonar was used, and the specifics of the sound sources used are unknown (Cox *et al.*, 2006, Freitas, 2004); exercises took place in an area surrounded by landmasses separated by less than 35 nm (65 km) and at least 10 nm (19 km) in length, or in an embayment. Exercises involving multiple ships employing MFA near land may produce sound directed towards a channel or embayment that may cut off the lines of egress for marine mammals (Freitas, 2004).

Canary Islands, Spain (2002)

The southeastern area within the Canary Islands is well known for aggregations of beaked whales due to its ocean depths of greater than 547 fathoms (1,000 m) within a few hundred meters of the coastline (Fernandez *et al.*, 2005). On September 24, 2002, 14 beaked whales were found stranded on Fuerteventura and Lanzarote Islands in the Canary Islands (International Council for Exploration of the Sea, 2005a). Seven whales died, while the remaining seven live whales were returned to deeper waters (Fernandez *et al.*, 2005). Four beaked whales were found stranded dead over the next 3 days either on the coast or floating offshore. These strandings occurred within near proximity of an international naval exercise that utilized MFAS and involved numerous surface warships and several submarines. Strandings began about 4 hours after the onset of MFA sonar activity (International Council for Exploration of the Sea, 2005a; Fernandez *et al.*, 2005).

Eight Cuvier's beaked whales, one Blainville's beaked whale, and one Gervais' beaked whale were necropsied, six of them within 12 hours of stranding (Fernandez *et al.*, 2005). No pathogenic bacteria were isolated from the carcasses (Jepson *et al.*, 2003). The animals displayed severe vascular congestion and hemorrhage especially around the tissues in the jaw, ears, brain, and kidneys, displaying marked disseminated microvascular hemorrhages associated with widespread fat emboli (Jepson *et al.*, 2003; International Council for Exploration of the Sea, 2005a). Several organs contained intravascular bubbles, although definitive evidence of gas embolism in vivo is difficult to determine after death (Jepson *et al.*,

2003). The livers of the necropsied animals were the most consistently affected organ, which contained macroscopic gas-filled cavities and had variable degrees of fibrotic encapsulation. In some animals, cavitory lesions had extensively replaced the normal tissue (Jepson *et al.*, 2003). Stomachs contained a large amount of fresh and undigested contents, suggesting a rapid onset of disease and death (Fernandez *et al.*, 2005). Head and neck lymph nodes were enlarged and congested, and parasites were found in the kidneys of all animals (Fernandez *et al.*, 2005).

The association of NATO MFA sonar use close in space and time to the beaked whale strandings, and the similarity between this stranding event and previous beaked whale mass strandings coincident with sonar use, suggests that a similar scenario and causative mechanism of stranding may be shared between the events. Beaked whales stranded in this event demonstrated brain and auditory system injuries, hemorrhages, and congestion in multiple organs, similar to the pathological findings of the Bahamas and Madeira stranding events. In addition, the necropsy results of Canary Islands stranding event lead to the hypothesis that the presence of disseminated and widespread gas bubbles and fat emboli were indicative of nitrogen bubble formation, similar to what might be expected in decompression sickness (Jepson *et al.*, 2003; Fernandez *et al.*, 2005).

Spain (2006)

The Spanish Cetacean Society reported an atypical mass stranding of four beaked whales that occurred January 26, 2006, on the southeast coast of Spain, near Mojacar (Gulf of Vera) in the Western Mediterranean Sea. According to the report, two of the whales were discovered the evening of January 26 and were found to be still alive. Two other whales were discovered during the day on January 27, but had already died. The fourth animal was found dead on the afternoon of January 27, a few kilometers north of the first three animals. From January 25–26, 2006, Standing North Atlantic Treaty Organization (NATO) Response Force Maritime Group Two (five of seven ships including one U.S. ship under NATO Operational Control) had conducted active sonar training against a Spanish submarine within 50 nm (93 km) of the stranding site.

Veterinary pathologists necropsied the two male and two female Cuvier's beaked whales. According to the pathologists, the most likely primary

cause of this type of beaked whale mass stranding event was anthropogenic acoustic activities, most probably anti-submarine MFAS used during the military naval exercises. However, no positive acoustic link was established as a direct cause of the stranding. Even though no causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1000–6000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships (in this instance, five) were operating MFAS in the same area over extended periods of time (in this case, 20 hours) in close proximity; Exercises took place in an area surrounded by landmasses, or in an embayment. Exercises involving multiple ships employing MFA sonar near land may have produced sound directed towards a channel or embayment that may have cut off the lines of egress for the affected marine mammals (Freitas, 2004).

Association Between Mass Stranding Events and Exposure to MFAS

Several authors have noted similarities between some of these stranding incidents: they occurred in islands or archipelagoes with deep water nearby, several appeared to have been associated with acoustic waveguides like surface ducting, and the sound fields created by ships transmitting MFAS (Cox *et al.*, 2006, D'Spain *et al.*, 2006). Although Cuvier's beaked whales have been the most common species involved in these stranding events (81 percent of the total number of stranded animals), other beaked whales (including *Mesoplodon europaeus*, *M. densirostris*, and *Hyperoodon ampullatus*) comprise 14 percent of the total. Other species (*Stenella coeruleoalba*, *Kogia breviceps* and *Balaenoptera acutorostrata*) have stranded, but in much lower numbers and less consistently than beaked whales.

Based on the evidence available, however, we cannot determine whether (a) Cuvier's beaked whale is more prone to injury from high-intensity sound than other species, (b) their behavioral responses to sound makes them more likely to strand, or (c) they are more likely to be exposed to MFAS than other cetaceans (for reasons that remain unknown). Because the association

between active sonar exposures and marine mammals mass stranding events is not consistent—some marine mammals strand without being exposed to sonar and some sonar transmissions are not associated with marine mammal stranding events despite their co-occurrence—other risk factors or a grouping of risk factors probably contribute to these stranding events.

Behaviorally Mediated Responses to MFAS That May Lead to Stranding

Although the confluence of Navy MFAS with the other contributory factors noted in the report was identified as the cause of the 2000 Bahamas stranding event, the specific mechanisms that led to that stranding (or the others) are not understood, and there is uncertainty regarding the ordering of effects that led to the stranding. It is unclear whether beaked whales were directly injured by sound (acoustically mediated bubble growth, addressed above) prior to stranding or whether a behavioral response to sound occurred that ultimately caused the beaked whales to be injured and strand.

Although causal relationships between beaked whale stranding events and active sonar remain unknown, several authors have hypothesized that stranding events involving these species in the Bahamas and Canary Islands may have been triggered when the whales changed their dive behavior in a startled response to exposure to active sonar or to further avoid exposure (Cox *et al.*, 2006, Rommel *et al.*, 2006). These authors proposed three mechanisms by which the behavioral responses of beaked whales upon being exposed to active sonar might result in a stranding event. These include: gas bubble formation caused by excessively fast surfacing; remaining at the surface too long when tissues are supersaturated with nitrogen; or diving prematurely when extended time at the surface is necessary to eliminate excess nitrogen. More specifically, beaked whales that occur in deep waters that are in close proximity to shallow waters (for example, the “canyon areas” that are cited in the Bahamas stranding event; see D'Spain and D'Amico, 2006), may respond to active sonar by swimming into shallow waters to avoid further exposures and strand if they were not able to swim back to deeper waters. Second, beaked whales exposed to active sonar might alter their dive behavior. Changes in their dive behavior might cause them to remain at the surface or at depth for extended periods of time which could lead to hypoxia directly by increasing their oxygen demands or indirectly by increasing

their energy expenditures (to remain at depth) and increase their oxygen demands as a result. If beaked whales are at depth when they detect a ping from an active sonar transmission and change their dive profile, this could lead to the formation of significant gas bubbles, which could damage multiple organs or interfere with normal physiological function (Cox *et al.*, 2006; Rommel *et al.*, 2006; Zimmer and Tyack, 2007). Baird *et al.* (2005) found that slow ascent rates from deep dives and long periods of time spent within 50 m of the surface were typical for both Cuvier's and Blainville's beaked whales, the two species involved in mass strandings related to naval sonar. These two behavioral mechanisms may be necessary to purge excessive dissolved nitrogen concentrated in their tissues during their frequent long dives (Baird *et al.*, 2005). Baird *et al.* (2005) further suggests that abnormally rapid ascents or premature dives in response to high-intensity sonar could indirectly result in physical harm to the beaked whales, through the mechanisms described above (gas bubble formation or non-elimination of excess nitrogen).

Because many species of marine mammals make repetitive and prolonged dives to great depths, it has long been assumed that marine mammals have evolved physiological mechanisms to protect against the effects of rapid and repeated decompressions. Although several investigators have identified physiological adaptations that may protect marine mammals against nitrogen gas supersaturation (alveolar collapse and elective circulation; Kooyman *et al.*, 1972; Ridgway and Howard, 1979), Ridgway and Howard (1979) reported that bottlenose dolphins (*Tursiops truncatus*) that were trained to dive repeatedly had muscle tissues that were substantially supersaturated with nitrogen gas. Houser *et al.* (2001) used these data to model the accumulation of nitrogen gas within the muscle tissue of other marine mammal species and concluded that cetaceans that dive deep and have slow ascent or descent speeds would have tissues that are more supersaturated with nitrogen gas than other marine mammals. Based on these data, Cox *et al.* (2006) hypothesized that a critical dive sequence might make beaked whales more prone to stranding in response to acoustic exposures. The sequence began with (1) very deep (to depths as deep as 2 kilometers) and long (as long as 90 minutes) foraging dives with (2) relatively slow, controlled ascents, followed by (3) a series of “bounce” dives between 100 and 400

meters in depth (also see Zimmer and Tyack, 2007). They concluded that acoustic exposures that disrupted any part of this dive sequence (for example, causing beaked whales to spend more time at surface without the bounce dives that are necessary to recover from the deep dive) could produce excessive levels of nitrogen supersaturation in their tissues, leading to gas bubble and emboli formation that produces pathologies similar to decompression sickness.

Recently, Zimmer and Tyack (2007) modeled nitrogen tension and bubble growth in several tissue compartments for several hypothetical dive profiles and concluded that repetitive shallow dives (defined as a dive where depth does not exceed the depth of alveolar collapse, approximately 72 m for *Ziphius*), perhaps as a consequence of an extended avoidance reaction to sonar sound, could pose a risk for decompression sickness and that this risk should increase with the duration of the response. Their models also suggested that unrealistically rapid ascent rates of ascent from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected. Tyack *et al.* (2006) suggested that emboli observed in animals exposed to mid-frequency range sonar (Jepson *et al.*, 2003; Fernandez *et al.*, 2005) could stem from a behavioral response that involves repeated dives shallower than the depth of lung collapse. Given that nitrogen gas accumulation is a passive process (i.e. nitrogen is metabolically inert), a bottlenose dolphin was trained to repetitively dive a profile predicted to elevate nitrogen saturation to the point that nitrogen bubble formation was predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of asymptomatic nitrogen gas bubbles (Houser *et al.*, 2007).

If marine mammals respond to a Navy vessel that is transmitting active sonar in the same way that they might respond to a predator, their probability of flight responses should increase when they perceive that Navy vessels are approaching them directly, because a direct approach may convey detection and intent to capture (Burger and Gochfeld, 1981, 1990; Cooper, 1997, 1998). The probability of flight responses should also increase as received levels of active sonar increase (and the ship is, therefore, closer) and as ship speeds increase (that is, as approach speeds increase). For example, the probability of flight responses in Dall's sheep (*Ovis dalli dalli*) (Frid 2001a, b), ringed seals (*Phoca hispida*)

(Born *et al.*, 1999), Pacific brant (*Branta bernic nigricans*) and Canada geese (*B. canadensis*) increased as a helicopter or fixed-wing aircraft approached groups of these animals more directly (Ward *et al.*, 1999). Bald eagles (*Haliaeetus leucocephalus*) perched on trees alongside a river were also more likely to flee from a paddle raft when their perches were closer to the river or were closer to the ground (Steidl and Anthony, 1996).

Despite the many theories involving bubble formation (both as a direct cause of injury (see Acoustically Mediated Bubble Growth Section) and an indirect cause of stranding (See Behaviorally Mediated Bubble Growth Section), Southall *et al.* (2007) summarizes that there is either scientific disagreement or a lack of information regarding each of the following important points: (1) Received acoustical exposure conditions for animals involved in stranding events; (2) pathological interpretation of observed lesions in stranded marine mammals; (3) acoustic exposure conditions required to induce such physical trauma directly; (4) whether noise exposure may cause behavioral reactions (such as atypical diving behavior) that secondarily cause bubble formation and tissue damage; and (5) the extent the post mortem artifacts introduced by decomposition before sampling, handling, freezing, or necropsy procedures affect interpretation of observed lesions.

During AFAST exercises there will be use of multiple sonar units in areas where six species of beaked whale species may be present. A surface duct may be present in a limited area for a limited period of time. Although most of the ASW training events will take place in the deep ocean, some will occur in areas of high bathymetric relief. However, none of the training events will take place in a location having a constricted channel with limited egress similar to the Bahamas (because none exist in the AFAST Study Area). Consequently, not all five of the environmental factors believed to contribute to the Bahamas stranding (mid-frequency sonar, beaked whale presence, surface ducts, steep bathymetry, and constricted channels with limited egress) will be present during AFAST exercises. However, as mentioned previously, NMFS recommends caution when steep bathymetry, surface ducting conditions, or a constricted channel is present when mid-frequency tactical sonar is employed and cetaceans (especially beaked whales) are present.

IEER (Underwater Detonation of Small Explosive Charges)

IEER includes the underwater detonation of small (4.1 lb) charges. Underwater detonations send a shock wave and blast noise through the water and can release gaseous by-products, create an oscillating bubble, or cause a plume of water to shoot up from the water surface (IEER charges do not cause a plume because of their relatively small size). The shock wave and accompanying noise are of most concern to marine animals. Depending on the intensity of the shock wave and size, location, and depth of the animal, an animal can be injured, killed, suffer non-lethal physical effects, experience hearing related effects with or without behavioral responses, or exhibit temporary behavioral responses or tolerance from hearing the blast sound. Generally, exposures to higher levels of impulse and pressure levels would result in greater impacts to an individual animal. Animals would need to be very close to the smaller explosives used in the IEER exercises to be exposed to levels of pressure or sound that would likely result in the more severe effects discussed here.

Injuries resulting from a shock wave take place at boundaries between tissues of different densities. Different velocities are imparted to tissues of different densities, and this can lead to their physical disruption. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000). Gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.*, 1973). In addition, gas-containing organs including the nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Intestinal walls can bruise or rupture, with subsequent hemorrhage and escape of gut contents into the body cavity. Less severe gastrointestinal tract injuries include contusions, petechiae (small red or purple spots caused by bleeding in the skin), and slight hemorrhaging (Yelverton *et al.*, 1973).

Because the ears are the most sensitive to pressure, they are the organs most sensitive to injury (Ketten, 2000). Sound-related damage associated with blast noise can be theoretically distinct from injury from the shock wave, particularly farther from the explosion. If an animal is able to hear a noise, at some level it can damage its hearing by causing decreased sensitivity (Ketten, 1995) (See Noise-induced Threshold

Shift Section above). Sound-related trauma can be lethal or sublethal. Lethal impacts are those that result in immediate death or serious debilitation in or near an intense source and are not, technically, pure acoustic trauma (Ketten, 1995). Sublethal impacts include hearing loss, which is caused by exposures to perceptible sounds. Severe damage (from the shock wave) to the ears includes tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear. Moderate injury implies partial hearing loss due to tympanic membrane rupture and blood in the middle ear. Permanent hearing loss also can occur when the hair cells are damaged by one very loud event, as well as by prolonged exposure to a loud noise or chronic exposure to noise. The level of impact from blasts depends on both an animal's location and, at outer zones, on its sensitivity to the residual noise (Ketten, 1995).

There have been fewer studies addressing the behavioral effects of explosives on marine mammals than MFAS/HFAS. However, though the nature of the sound waves emitted from an explosion are different (in shape and rise time) from MFAS/HFAS, we still anticipate the same sorts of behavioral responses (see Exposure to MFAS/HFAS: Behavioral Disturbance Section) to result from repeated explosive detonations (a smaller range of likely less severe responses (i.e., not rising to the level of MMPA harassment) would be expected to occur as a result of exposure to a single explosive detonation that was not powerful enough or close enough to the animal to cause TTS or injury).

Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the "permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance." The NDAA of 2004 amended the MMPA as it relates to military readiness activities and the incidental take authorization process such that "least practicable adverse impact" shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the "military readiness activity". The training activities described in the AFAST application are considered military readiness activities.

NMFS reviewed the proposed AFAST activities and the proposed AFAST mitigation measures presented in the Navy's application to determine whether the activities and mitigation measures were capable of achieving the least practicable adverse effect on marine mammals. NMFS determined that further discussion was necessary regarding: (1) general minimization of marine mammal impacts; (2) minimization of impacts within the southeastern NARW critical habitat; and (3) the potential relationship between the operation of MFAS/HFAS and marine mammal strandings. NMFS worked with the Navy to identify additional practicable and effective mitigation measures, which included a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the "military readiness activity".

NMFS and the Navy developed additional mitigation measures that address the concerns mentioned above, including the development of Planning Awareness Areas (PAAs), additional minimization of impacts in the southeastern NARW critical habitat, and a Stranding Response Plan. Included below are the mitigation measures the Navy initially proposed (see "Mitigation Measures Proposed in the Navy's LOA Application") and the additional measures that NMFS and the Navy developed (see "Additional Measures Developed by NMFS and the Navy" below).

Separately, NMFS has previously received comments from the public expressing concerns regarding potential delays between when marine mammals are visually detected by watchstanders and when the tactical sonar is actually powered or shut down. NMFS and the Navy have discussed this issue and determined the following: Naval operators and lookouts are aware of the potential for a very small delay (up to about 4 seconds) between detecting a marine mammal and powering down or shutting down the tactical sonar and will take the actions necessary to ensure that sonar is powered down or shut down when detected animals are within the specified powerdown or shutdown zone (for example, by initiating shutdown when animals are approaching, but not quite within the designated distance).

Mitigation Measures Proposed in the Navy's LOA Application

This section includes the protective measures proposed by the Navy and is

taken directly from their application (with the exception of headings, which have been modified for increased clarity within the context of this proposed rule).

Navy's Protective Measures for MFAS/HFAS

Current protective measures employed by the Navy include applicable training of personnel and implementation of activity specific procedures resulting in minimization and/or avoidance of interactions with protected resources.

Navy shipboard lookout(s) are highly qualified and experienced marine observers. At all times, the shipboard lookouts are required to sight and report, to the Officer of the Deck, all objects found in the water. Objects (e.g., trash, periscope) or disturbances (e.g., surface disturbance, discoloration) in the water may indicate a threat to the vessel and its crew. Navy lookouts undergo extensive training to qualify as a watchstander. This training includes on-the-job instruction under the supervision of an experienced watchstander, followed by completion of the Personal Qualification Standard (PQS) program, certifying that they have demonstrated the necessary skills to detect and report partially submerged objects. In addition to these requirements, many watchstanders periodically undergo a two-day refresher training course.

For the past few years, the Navy has implemented marine mammal spotter training for its bridge lookout personnel on ships and submarines. This training has been revamped and updated as the Marine Species Awareness Training (MSAT) and is provided to all applicable units. The lookout training program incorporates MSAT, which addresses the lookout's role in environmental protection, laws governing the protection of marine species, Navy stewardship commitments, and general observation information including more detailed information for spotting marine mammals. MSAT has been reviewed by NMFS and acknowledged as suitable training. MSAT would also be provided to the following personnel:

- Bridge personnel on ships and submarines—Personnel would continue to use the current marine mammal spotting training and any updates.
- Aviation units—Pilots and air crew personnel whose airborne duties during ASW training activities include searching for submarine periscopes would be trained in marine mammal spotting. These personnel would also be trained on the details of the mitigation

measures specific to both their platform and that of the surface combatants with which they are associated.

- Sonar personnel on ships, submarines, and ASW aircraft—Both passive and active sonar operators on ships, submarines, and aircraft utilize protective measures relative to their platform. The Navy issues a Letter of Instruction for each Major Exercise which mandates specific actions to be taken if a marine mammal is detected, and these actions are standard operating procedure throughout the exercise.

The following procedures would be implemented to maximize the ability of operators to recognize instances when marine mammals are in the vicinity.

Personnel Training

(a) All lookouts onboard platforms involved in ASW training events will review the NMFS-approved MSAT material prior to use of active sonar.

(b) All Commanding Officers, Executive Officers, and officers standing watch on the bridge will have reviewed the MSAT material prior to a training event employing the use of MFAS.

(c) Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).

(d) Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

(e) Lookouts would be trained to quickly and effectively communicate within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

Lookout and Watchstander Responsibilities

(a) On the bridge of surface ships, there will always be at least three people on watch whose duties include observing the water surface around the vessel.

(b) All surface ships participating in ASW exercises will, in addition to the three personnel on watch noted previously, have at all times during the

exercise at least two additional personnel on watch as lookouts.

(c) Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.

(d) On surface vessels equipped with mid-frequency active sonar, pedestal mounted “Big Eye” (20x110) binoculars will be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(e) Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).

(f) Surface lookouts would scan the water from the ship to the horizon and be responsible for all contacts in their sector. In searching the assigned sector, the lookout would always start at the forward part of the sector and search aft (toward the back). To search and scan, the lookout would hold the binoculars steady so the horizon is in the top third of the field of vision and direct the eyes just below the horizon. The lookout would scan for approximately five seconds in as many small steps as possible across the field seen through the binoculars. They would search the entire sector in approximately five-degree steps, pausing between steps for approximately five seconds to scan the field of view. At the end of the sector search, the glasses would be lowered to allow the eyes to rest for a few seconds, and then the lookout would search back across the sector with the naked eye.

(g) After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

(h) At night, lookouts would not sweep the horizon with their eyes because eyes do not see well when they are moving. Lookouts would scan the horizon in a series of movements that would allow their eyes to come to periodic rests as they scan the sector. When visually searching at night, they would look a little to one side and out of the corners of their eyes, paying attention to the things on the outer edges of their field of vision.

(i) Personnel on lookout will be responsible for informing the Officer of the Deck of all objects or anomalies sighted in the water (regardless of the distance from the vessel), since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

Operating Procedures

(a) Commanding Officers will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(b) All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) will monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action. The Navy can detect sounds within the human hearing range due to an operator listening to the incoming sounds. Passive acoustic detection systems are used during all ASW activities.

(c) Units shall use trained lookouts to survey for marine mammals prior to commencement and during the use of active sonar.

(d) During operations involving sonar, personnel will utilize all available sensor and optical systems (such as Night Vision Goggles) to aid in the detection of marine mammals.

(e) Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(f) Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yards (183 m) of the sonobuoy.

(g) Marine mammal detections will be immediately reported to assigned Aircraft Control Unit (if participating) for further dissemination to ships in the vicinity of the marine species. This action would occur when it is reasonable to conclude that the course of the ship will likely close the distance between the ship and the detected marine mammal.

(h) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy will ensure that sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1000 yards (914 m) of the sonar dome (the bow).

(i) Ships and submarines will continue to limit maximum transmission levels by this 6-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1828

m) beyond the location of the last detection.

(ii) Should a marine mammal be detected within or closing to inside 457 m (500 yd) of the sonar dome, active sonar transmissions would be limited to at least 10 dB below the equipment's normal operating level. Ships and submarines will continue to limit maximum ping levels by this 10-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2000 yards (1828 m) beyond the location of the last detection.

(iii) Should the marine mammal be detected within or closing to inside 183 m (200 yd) of the sonar dome, active sonar transmissions would cease. Sonar will not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1828 m) beyond the location of the last detection.

(iv) If the need for power-down should arise as detailed in "Safety Zones" above, Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 sonar was being operated).

(i) Prior to start up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

(j) Sonar levels (generally)—Navy will operate active sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(k) Helicopters shall observe/survey the vicinity of an ASW Operation for 10 minutes before the first deployment of active (dipping) sonar in the water.

(l) Helicopters shall not dip their active sonar within 200 yards (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yards (183 m) after pinging has begun.

(m) Submarine sonar operators will review detection indicators of close- aboard marine mammals prior to the commencement of ASW training activities involving active MFAS.

(n) If, after conducting an initial maneuver to avoid close quarters with dolphins, the ship concludes that dolphins are deliberately closing in on the ship to ride the vessel's bow wave, no further mitigation actions would be necessary because dolphins are out of the main transmission axis of the active sonar while in the shallow-wave area of the vessel bow.

Additional Mitigation for TORPEXs in the Northeast NARW Critical Habitat

TORPEXs in locations other than the Northeast will utilize the measures described above. TORPEXs conducted in the five TORPEX training areas off of Cape Cod, which may occur in right whale critical habitat, will implement the following measures.

(a) All torpedo-firing operations shall take place during daylight hours.

(b) During the conduct of each test, visual surveys of the test area shall be conducted by all vessels and aircraft involved in the exercise to detect the presence of marine mammals. Additionally, trained observers shall be placed on the submarine, spotter aircraft, and the surface support vessel. All participants will be required to report sightings of any marine mammals, including negative reports, prior to torpedo firings. Reporting requirements will be outlined in the test plans and procedures written for each individual exercise, and will be emphasized as part of pre-exercise briefings conducted with all participants.

(c) Observers shall receive NMFS-approved training in field identification, distribution, and relevant behaviors of marine mammals of the western north Atlantic. Currently, this training is provided by a professor at the University of Rhode Island, Graduate School of Oceanography. Observers shall fill out Standard Sighting Forms and the data will be housed at the Naval Undersea Warfare Center Division Newport (NUWC DIVNPT). Any sightings of North Atlantic right whales shall be immediately communicated to the Sighting Advisory System (SAS). All platforms shall have onboard a copy of

- The Guide to Marine Mammals and Turtles of the U.S. Atlantic and Gulf of Mexico (Wynne and Schwartz 1999).

- The NMFS Critical Sightings Program placard.

- Right Whales, Guidelines to Mariners placard.

(d) In addition to the visual surveillance discussed above, dedicated aerial surveys shall be conducted utilizing a fixed-wing aircraft. An aircraft with an overhead wing (i.e., Cessna Skymaster or similar) will be used to facilitate a clear view of the test area. Two trained observers, in addition to the pilot, shall be embarked on the aircraft. Surveys will be conducted at an approximate altitude of 1000 ft (305 m) flying parallel track lines at a separation of 1 nmi (1.85 km), or as necessary to facilitate good visual coverage of the sea surface. While conducting surveillance, the aircraft shall maintain an

approximate speed of 100 knots (185 km/hr). Since factors that affect visibility are highly dependent on the specific time of day of the survey, the flight operator will have the flexibility to adjust the flight pattern to reduce glare and improve visibility. The entire test site will be surveyed initially, but once preparations are being made for an actual test launch, survey effort will be concentrated over the vicinity of the individual test location. Further, for approximately ten minutes immediately prior to launch, the aircraft will racetrack back and forth between the launch vessel and the target vessel.

(e) Commencement of an individual torpedo test scenario shall not occur until observers from all vessels and aircraft involved in the exercise have reported to the Officer in Tactical Command (OTC) and the OTC has declared that the range is clear of marine mammals. Should protected animals be present within or seen moving toward the test area, the test shall be either delayed or moved as required to avoid interference with the animals.

(f) The TORPEX will be suspended if the Beaufort Sea State exceeds 3 or if visibility precludes safe operations.

(g) Vessel speeds:

- During transit through the North Atlantic right whale critical habitat, surface vessels and submarines shall maintain a speed of no more than 10 knots (19 km/hr) while not actively engaged in the exercise procedures.

- During TORPEX operations, a firing vessel will likely not exceed 10 knots. When a submarine is used as a target, vessel speeds would not likely exceed 18 knots. However, on occasion, when surface vessels are used as targets, the vessel may exceed 18 kts in order to fully test the functionality of the torpedoes. This increased speed would occur for a short period of time (e.g., 10–15 minutes) to evade the torpedo when fired upon.

(h) In the event of an animal strike, or if an animal is discovered that appears to be in distress, a report will immediately be promulgated through the appropriate Navy chain of Command (see Stranding Plan for additional details).

Potential Mitigation Under Development

The Navy is working to develop the capability to detect, identify, and localize vocalizing marine mammals using the installed sensors. Based on the current status of acoustic monitoring science, it is not yet possible to use installed systems as a mitigation tools; however, as this science develops, it

will be incorporated into the AFAST mitigation plan as appropriate.

The Navy is also actively engaged in acoustic monitoring research involving a variety of methodologies (e.g., underwater gliders); to date, none of the methodologies have been developed to the point where they could be used as an actual mitigation tool. The Navy will continue to coordinate passive monitoring and detection research specific to the proposed use of active sonar. As technology and methodologies become available, their applicability and viability will be evaluated for incorporation into this mitigation plan.

Navy's Protective Measures for IEER

(a) Crews will conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search should be conducted below 500 yards (457 m) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft training activities, crews are allowed to conduct coordinated area clearances.

(b) Crews shall conduct a minimum of 30 minutes of visual and acoustic monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

(c) For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 1,000 yards (914 m) of observed marine mammal activity, deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 1,000 yards (914 m) of the intended post position, co-locate the explosive source sonobuoy (AN/SSQ-110A) (source) with the receiver.

(d) When able, crews will conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to

checking off station and out of communication range of these sensors.

(e) Aural Detection: If the presence of marine mammals is detected aurally, then that should cue the aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.

(f) Visual Detection: If marine mammals are visually detected within 1,000 yards (914 m) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 1,000 yards (914 m) safety buffer. Aircrews may also shift their multi-static active search to another post, where marine mammals are outside the 1,000 yards (914 m) safety buffer.

(g) Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 1,000 yard (914 m) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

(h) Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

(i) Ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that cannot be scuttled shall

be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

(j) Marine mammal monitoring shall continue until out of own-aircraft sensor range.

Mitigation Measures Related to Vessel Transit and North Atlantic Right Whales

Mid-Atlantic, Offshore of the Eastern United States

For purposes of these measures, the Mid-Atlantic is defined broadly to include ports south and east of Block Island Sound southward to South Carolina. The procedure described below would be established as mitigation measures for Navy vessel transits during North Atlantic right whale migratory seasons near ports located off the western North Atlantic, offshore of the eastern United States. The mitigation measures would apply to all Navy vessel transits, including those vessels that would transit to and from East Coast ports and OPAREAs. Seasonal migration of right whales is generally described as occurring from October 15 through April 30, when right whales migrate between feeding grounds farther north and calving grounds farther south.

NMFS has identified ports located in the western Atlantic Ocean, offshore of the southeastern United States, where vessel transit during right whale migration is of highest concern for potential ship strike. The ports include the Hampton Roads entrance to the Chesapeake Bay, which includes the concentration of Atlantic Fleet vessels in Norfolk, Virginia. Navy vessels are required to use extreme caution and operate at a slow, safe speed consistent with mission and safety during the months indicated in Table 6 and within a 37 km (20 NM) arc (except as noted) of the specified reference points.

Region	Months	Port Reference Points
South and East of Block Island	Sep-Oct and Mar-Apr	37 km (20 NM) seaward of line between 41-4.49N 071-51.15W and 41-18.58N 070-50.23W
New York / New Jersey	Sep-Oct and Feb-Apr	40-30.64N 073-57.76W
Delaware Bay (Philadelphia)	Oct-Dec and Feb-Mar	38-52.13N 075-1.93W
Chesapeake Bay (Hampton Roads and Baltimore)	Nov-Dec and Feb-Apr	37-1.11N 075-57.56W
North Carolina	Dec-Apr	34-41.54N 076-40.20W
South Carolina	Oct-Apr	33-11.84N 079-8.99W and 32-43.39N 079-48.72W

Table 6. Times and Areas of Increased Caution to prevent Ship Strike of Right Whales

During the indicated months, Navy vessels would practice increased vigilance with respect to avoidance of vessel-whale interactions along the mid-Atlantic coast, including transits to and from any mid-Atlantic ports not specifically identified above. All surface units transiting within 56 km (30 NM) of the coast in the mid-Atlantic would ensure at least two watchstanders are posted, including at least one lookout that has completed required MSAT training. Furthermore, Navy vessels would not knowingly approach any whale head on and would maneuver to keep at least 457 m (1,500 ft) away from any observed whale, consistent with vessel safety.

Southeast Atlantic, Offshore of the Eastern United States

For purposes of these measures, the southeast encompasses sea space from Charleston, South Carolina, southward to Sebastian Inlet, Florida, and from the coast seaward to 148 km (80 NM) from shore. The mitigation measures described in this section were developed specifically to protect the North Atlantic right whale during its calving season (Typically from December 1st through March 31st). During this period, North Atlantic right whales give birth and nurse their calves in and around a federally designated critical habitat off the coast of Georgia and Florida. This critical habitat is the area from 31–15N to 30–15N extending from the coast out to 28 km (15 NM), and the area from 28–00N to 30–15N from the coast out to 9 km (5 NM). All mitigation measures that apply to the critical habitat also apply to an associated area of concern which extends 9 km (5 NM) seaward of the designated critical boundaries.

Prior to transiting or training in the critical habitat or associated area of concern, ships will contact Fleet Area Control and Surveillance Facility, Jacksonville, to obtain latest whale sighting and other information needed to make informed decisions regarding safe speed and path of intended movement. Subs shall contact Commander, Submarine Group Ten for similar information.

Specific mitigation measures related to activities occurring within the critical habitat or associated area of concern include the following:

- When transiting within the critical habitat or associated area of concern, vessels will exercise extreme caution and proceed at a slow safe speed. The speed will be the slowest safe speed that is consistent with mission, training and operations.

- Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than 12 hours old.

- Additionally, circumstances could arise where, in order to avoid North Atlantic right whale(s), speed reductions could mean vessel must reduce speed to a minimum at which it can safely keep on course or vessels could come to an all stop.

- Vessels will avoid head-on approaches to North Atlantic right whale(s) and will maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when change of course would create an imminent and serious threat to person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

- Ships shall not transit through the critical habitat or associated area of concern in a North-South direction.

- Ship, surfaced submarines, and aircraft will report any whale sightings to Fleet Area Control and Surveillance Facility, Jacksonville, by most convenient and fast means. Sighting report will include the time, latitude/longitude, direction of movement and number and description of whale (i.e., adult/calf).

Northeast Atlantic, Offshore of the Eastern United States

Prior to transiting the Great South Channel or Cape Cod Bay critical habitat areas, ships will obtain the latest right whale sightings and other information needed to make informed decisions regarding safe speed. The Great South Channel critical habitat is defined by the following coordinates: 41–00 N, 69–05 W; 41–45 N, 69–45 W; 42–10 N, 68–31 W; 41–38 N, 68–13 W. The Cape Cod Bay critical habitat is defined by the following coordinates: 42–04.8 N, 70–10 W; 42–12 N, 70–15 W; 42–12 N, 70–30 W; 41–46.8 N, 70–30 W.

Ships, surfaced subs, and aircraft will report any North Atlantic right whale sightings (if the whale is identifiable as a right whale) off the northeastern U.S. to Patrol and Reconnaissance Wing (COMPATRECONWING). The report will include the time of sighting, lat/long, direction of movement (if apparent) and number and description of the whale(s). In addition, vessels or aircraft that observe whale carcasses will record the location and time of the sighting and report this information as soon as possible to the cognizant regional environmental coordinator. All whale strikes must be reported. Report

will include the date, time, and location of the strike; vessel course and speed; operations being conducted by the vessel; weather conditions, visibility, and sea state; description of the whale; narrative of incident; and indication of whether photos/videos were taken. Units are encouraged to take photos whenever possible. See AFAST Stranding Plan for additional detail.

Specific mitigation measures related to activities occurring within the critical habitat or associated area of concern include the following:

- Vessels will avoid head-on approaches to North Atlantic right whale(s) and will maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when change of course would create an imminent and serious threat to person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

- When transiting within the critical habitat or associated area of concern, vessels shall use extreme caution and operate at a safe speed so as to be able to avoid collisions with North Atlantic right whales and other marine mammals, and stop within a distance appropriate to the circumstances and conditions.

- Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than one week old.

- Ships transiting in the Cape Cod Bay and Great South Channel critical habitats will obtain information on recent whale sightings in the vicinity of the critical habitat. Any vessel operating in the vicinity of a North Atlantic right whale shall consider additional speed reductions as per Rule 6 of International Navigational Rules.

Additional Mitigation Measures Developed by NMFS and the Navy

As mentioned above, NMFS worked with the Navy to identify additional practicable and effective mitigation measures to address the following two issues of concern: (1) General minimization of marine mammal impacts; (2) minimization of impacts within the southeastern NARW critical habitat; and (3) the potential relationship between the operation of MFAS/HFAS and marine mammal strandings. Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the

accomplishment of one or more of the general goals listed below:

(a) Avoidance or minimization of injury or death of marine mammals wherever possible (goals b, c, and d may contribute to this goal).

(b) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(c) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(d) A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

(e) A reduction in adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(f) For monitoring directly related to mitigation—an increase in the

probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

NMFS and the Navy had extensive discussions regarding mitigation, in which we explored several mitigation options and their respective practicability. Ultimately, NMFS and the Navy developed the measures listed below, which we believe support (or contribute) to the goals mentioned in a–e above.

Planning Awareness Areas

The Navy has designated several Planning Awareness Areas (PAAs) (see Figure 2) based on areas of high productivity that have been correlated with high concentrations of marine mammals (such as persistent oceanographic features like upwellings associated with the Gulf Stream front where it is deflected off the east coast near the Outer Banks), and areas of steep bathymetric contours that are frequented by deep diving marine mammals such as beaked whales and sperm whales. In developing the PAAs, U.S. Fleet Forces (USFF) was able to consider these factors because of geographic flexibility in conducting ASW training. USFF is not tied to a specific range support structure for the majority of the training for AFAST. Additionally, the topography and bathymetry along the East Coast and in the Gulf of Mexico is unique in that there is a wide continental shelf leading to the shelf break affording a wider range of training opportunities.

- The Navy proposes to avoid planning major exercises in the

specified planning awareness areas (yellow areas on map). Should national security require the conduct of more than four major exercises (COMPTUEX, JTFEX, SEASWITI, or similar scale event) in these areas (meaning all or a portion of the exercise) per year the Navy would provide NMFS with prior notification and include the information in any associated after-action or monitoring reports.

- To the extent operationally feasible, the Navy plans to conduct no more than one of the four above-mentioned major exercises (COMPTUEX, JTFEX, SEASWITI or similar scale event) per year in the Gulf of Mexico. Based on operational requirements, the exercise area for this one exercise may include the De Soto Canyon. If national security needs require more than one major exercise to be conducted in the PAAs, which includes portions of the DeSoto Canyon, the Navy would provide NMFS with prior notification and include the information in any associated after-action or monitoring reports.

- The PAAs identified on the attached figure will be included in the Navy's Protective Measures Assessment Protocol (PMAP) (implemented by the Navy for use in the protection of the marine environment) for unit level situational awareness (i.e., exercises other than COMPTUEX, JTFEX, SEASWITI). The goal of PMAP is to raise awareness in the fleet and ensure common sense and informed oversight are injected into planning processes for testing and training evolutions.

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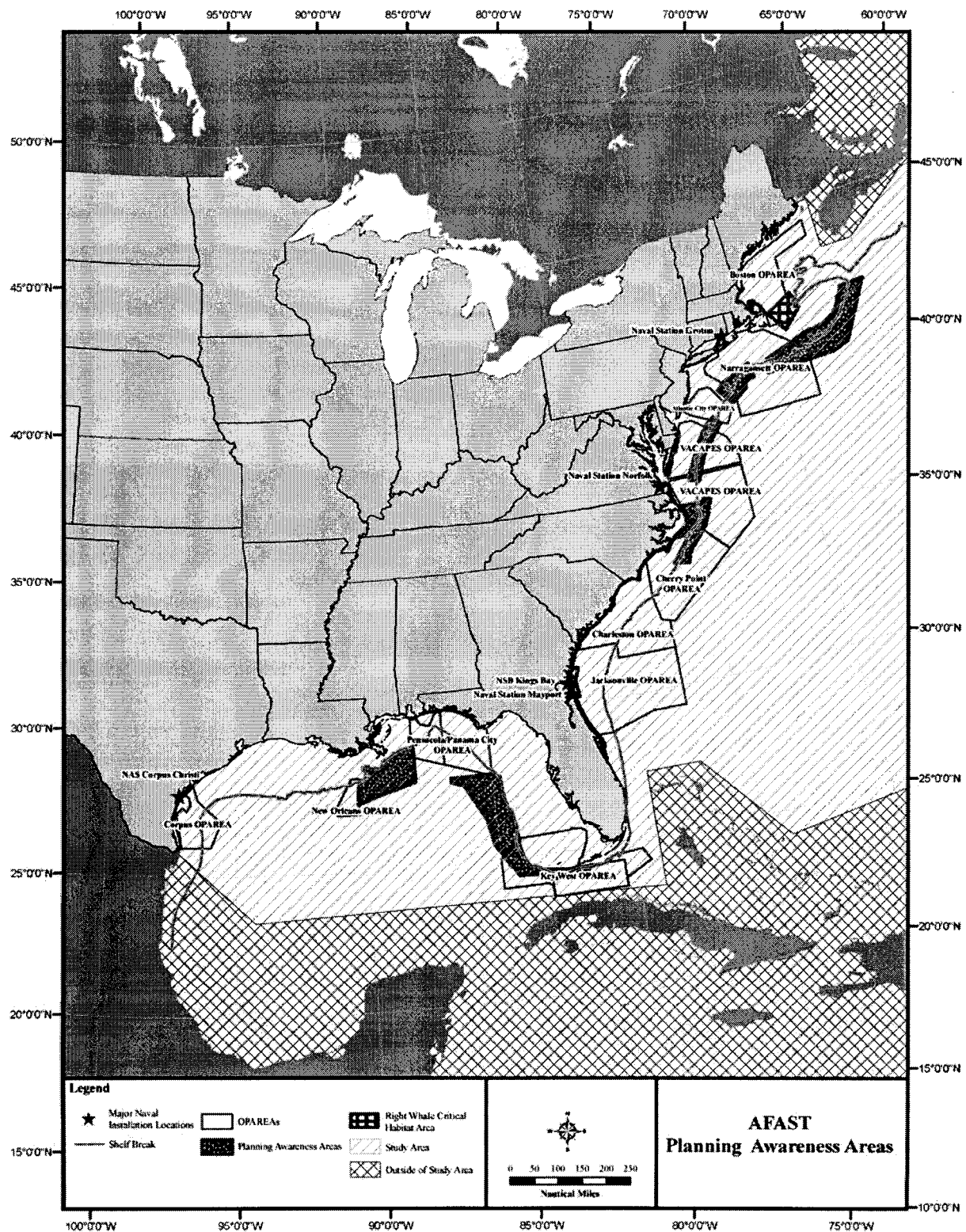


Figure 2. Planning Awareness Areas

Helicopter Dipping Sonar in NARW Critical Habitat

Helicopter Dipping Sonar is one of the two activity types that has been identified as planned to occur in the southern North Atlantic right whale (NARW) critical habitat. Historically, only maintenance of helicopter dipping sonars occurs within a portion of the NARW critical habitat. Tactical training with helicopter dipping sonar does not typically occur in the NARW critical habitat area at any time of the year. The critical habitat area is used on occasion for post maintenance operational checks and equipment testing due to its proximity to shore. Unless otherwise dictated by national security needs, the Navy will minimize helicopter dipping sonar maintenance within the SE right whale critical habitat from November 15–April 15.

Object Detection Exercises in NARW Critical Habitat

Object detection training requirements are another type of activity that have been identified as planned to occur in the southern North Atlantic right whale (NARW) critical habitat. The Navy recognizes the significance of the NARW calving area and has explored ways of affecting the least practicable impact (which includes a consideration of practicality of implementation and impacts to training fidelity) to right whales. Navy units will incorporate data from the Early Warning System (EWS) into exercise pre-planning efforts. As NMFS is aware, USFF contributes more than \$150,000 annually for aerial surveys that support the EWS, a communication network that assists afloat commands to avoid interactions with right whales. Fleet Area Control and Surveillance Facility, Jacksonville (FACSFACJAX) houses the Whale Fusion Center, which disseminates the latest right whale sighting information to Navy ships, submarines, and aircraft. Through the Fusion Center, FACSFACJAX coordinates ship and aircraft movement into the right whale critical habitat and the surrounding operating areas based on season, water temperature, weather conditions, and frequency of whale sightings and provides right whale reports to ships, submarines and aircraft, including coast guard vessels and civilian shipping. All sighting data is maintained on a Web site, <http://www.facsfacjax.navy.mil>. The Navy proposes to:

- Reduce the time spent conducting object detection exercises in the NARW critical habitat.
- Prior to conducting surface ship object detection exercises in the SE right

whale critical habitat during the time of November 15–April 15, ships will contact FACSFACJAX to obtain the latest right whale sighting information. FACSFACJAX will advise ships of all reported whale sightings in the vicinity of the critical habitat and AAOC. To the extent operationally feasible, ships will avoid conducting training in the vicinity of recently sighted right whales. Ships will maneuver to maintain at least 500 yards separation from any observed whale, consistent with the safety of the ship.

Stranding Response Plan for Major Navy Training Exercises in the AFAST Study Area

NMFS and the Navy have developed a draft Stranding Response Plan for Major Exercises in the AFAST Study Area (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>). Pursuant to 50 CFR Section 216.105, the plan will be included as part of (attached to) the Navy's MMPA Letter of Authorization (LOA), which contains the conditions under which the Navy is authorized to take marine mammals pursuant to training activities involving MFAS/HFAS or explosives (IEER) in the AFAST Study Area. The Stranding Response plan is specifically intended to outline the applicable requirements the authorization is conditioned upon in the event that a marine mammal stranding is reported in the AFAST Study Area during a major training exercise (MTE) (see glossary below). As mentioned above, NMFS considers all plausible causes within the course of a stranding investigation and this plan in no way presumes that any strandings in the AFAST Study Area are related to, or caused by, Navy training activities, absent a determination made in a Phase 2 Investigation as outlined in Paragraph 7 of this plan, indicating that MFAS or explosive detonation in the AFAST Study Area were a cause of the stranding. This plan is designed to address the following three issues:

- Mitigation—When marine mammals are in a situation that can be defined as a stranding (see glossary of plan), they are experiencing physiological stress. When animals are stranded, and alive, NMFS believes that exposing these compromised animals to additional known stressors would likely exacerbate the animal's distress and could potentially cause its death. Regardless of the factor(s) that may have initially contributed to the stranding, it is NMFS' goal to avoid exposing these animals to further stressors. Therefore, when live stranded cetaceans are in the water and engaged in what is classified

as an Uncommon Stranding Event (USE) (see glossary of plan), the shutdown component of this plan is intended to minimize the exposure of those animals to MFAS and explosive detonations, regardless of whether or not these activities may have initially played a role in the event.

- Monitoring—This plan will enhance the understanding of how MFAS/HFAS or IEER (as well as other environmental conditions) may, or may not, be associated with marine mammal injury or strandings. Additionally, information gained from the investigations associated with this plan may be used in the adaptive management of mitigation or monitoring measures in subsequent LOAs, if appropriate.

- Compliance—The information gathered pursuant to this protocol will inform NMFS' decisions regarding compliance with Sections 101(a)(5)(B and C) of the MMPA.

The Stranding Response Plan has several components:

Shutdown Procedures—When an uncommon stranding event (USE—defined in the plan) occurs during a major exercise in the AFAST Study Area, and a live cetacean(s) is in the water exhibiting indicators of distress (defined in the plan), NMFS will advise the Navy that they should cease MFAS/HFAS operation and explosive detonations within 14 nm (26 km) in the Atlantic and 17 nm (29 km) in the Gulf of Mexico of the live animal involved in the USE (NMFS and the Navy will maintain a dialogue, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures). These distances (14 and 17 nm) (26 and 29 km) are the approximate distances at which sound from the sonar sources are anticipated to attenuate to 145 dB (SPL). The risk function predicts that less than 1 percent of the animals exposed to sonar at this level (mysticete or odontocete) would respond in a manner that NMFS considers Level B Harassment. The following special shutdown provisions for right whales are also included: (1) The Navy will automatically cease sonar operation (without waiting for the notification from NMFS) within 14 or 17 nm (Atlantic or GOM, respectively) of an injured or entangled right whale found at sea during an MTE; and (2) The Navy will alert NMFS immediately if a dead right whale is found at sea during an MTE and increase vigilance in the area of the whale.

Memorandum of Agreement (MOA)—The Navy and NMFS will develop an MOA, or other mechanism consistent with federal fiscal law requirements

(and all other applicable laws), that allows the Navy to assist NMFS with the Phase 1 and 2 Investigations of USEs through the provision of in-kind services, such as (but not limited to) the use of plane/boat/truck for transport of stranding responders or animals, use of Navy property for necropsies or burial, or assistance with aerial surveys to discern the extent of a USE. The Navy may assist NMFS with the Investigations by providing one or more of the in-kind services outlined in the MOA, when available and logistically feasible and when the provision does not negatively affect Fleet operational commitments.

Communication Protocol—Effective communication is critical to the successful implementation of this Stranding Response Plan. Very specific protocols for communication, including identification of the Navy personnel authorized to implement a shutdown and the NMFS personnel authorized to advise the Navy of the need to implement shutdown procedures (NMFS Protected Resources HQ—senior administrators) and the associated phone trees, etc. are currently in development and will be refined and finalized for the Stranding Response Plan prior to the issuance of a final rule (and updated yearly).

Stranding Investigation—The Stranding Response Plan also outlines the way that NMFS plans to investigate any strandings (providing staff and resources are available) that occur during major training exercises in the AFAST Study Area.

Mitigation Conclusions

NMFS believes that the range clearance procedures and shutdown/safety zone/exclusion zone measures the Navy has proposed will enable the Navy to avoid injuring any marine mammals and will enable them to minimize the numbers of marine mammals exposed to levels associated with TTS for the following reasons:

MFAS/HFAS

The Navy's standard protective measures indicate that they will ensure powerdown of MFAS/HFAS by 6 dB when a marine mammal is detected within 1000 yd (914 km), powerdown of 4 more dB (or 10 dB total) when a marine mammal is detected within 500 yd (457 km), and will cease MFAS/HFAS transmissions when a marine mammal is detected within 200 yd (183 km).

PTS/Injury—NMFS believes that the proposed mitigation measures will allow the Navy to avoid exposing marine mammals to received levels of

MFAS/HFAS sound that would result in injury for the following reasons:

- The estimated distance from the most powerful source at which an animal would receive a level of 215 dB SEL (threshold for PTS/injury/Level A Harassment) is approximately 10 m (10.9 yd).
- NMFS believes that the probability that a marine mammal would approach within 10 m (10.9 yd) of the sonar dome (to the sides or below) without being seen by the watchstanders (who would then activate a shutdown if the animal was within 200 yd (183 m) is very low, especially considering that animals would likely avoid approaching a source transmitting at that level at that distance.

• The model predicted that some animals would be exposed to levels associated with injury, however, the model does not consider the mitigation or likely avoidance behaviors and NMFS believes that injury is unlikely when those factors are considered.

TTS—NMFS believes that the proposed mitigation measures will allow the Navy to minimize exposure of marine mammals to received levels of MFAS/HFAS sound associated with TTS for the following reasons:

- The estimated range of maximum distances from the most powerful source at which an animal would receive 195 dB SEL (the TTS threshold) is from approximately 275–500 m (301–547 yd) from the source in most operating environments.
- Based on the size of the animals, average group size, behavior, and average dive time, NMFS believes that the probability that Navy watchstanders will visually detect mysticetes or sperm whales, dolphins, and social pelagic species (pilot whales, melon-headed whales, etc.) at some point within the 1000-yd (914 km) safety zone before they are exposed to the TTS threshold levels is high, which means that the Navy would be able to shutdown or powerdown to avoid exposing these species to sound levels associated with TTS.
- However, more cryptic (animals that are difficult to detect and observe), deep-diving species (beaked whales and *Kogia* sp.) are less likely to be visually detected and could potentially be exposed to levels of MFAS/HFAS expected to cause TTS. Additionally, the Navy's bow-riding mitigation exception for dolphins may sometimes allow dolphins to be exposed to levels of MFAS/HFAS likely to result in TTS.

IEER

The Navy utilizes a 1000-yd exclusion zone (wherein explosive detonation will

not occur if animals are within the zone) for the IEER and they begin observations at least 30 minutes before any detonations. Based on the explosive criteria (see Acoustic Take Criteria Section), a marine mammal would need to be within 24–78 m of the explosive sonobuoy detonation to be exposed to levels that could cause death, within 79–179 m to be exposed to levels that could cause injury, and within 209–348 m to be exposed to levels that could result in TTS (the maximum range varies with acoustic propagation environment).

Mortality and Injury—Though the model predicted that 3 animals would be exposed to levels that would result in PTS (0 mortality), NMFS believes that the mitigation measures will allow the Navy to avoid exposing marine mammals to underwater detonations from IEER that would result in injury or mortality for the following reasons:

- Surveillance (including aerial and passive acoustic) begins two hours before the exercise and extends 1000-yd from the charges.
 - Animals would need to approach within less than approximately 24–78 m of the source unnoticed to be exposed to the mortality threshold (we note here that this threshold is conservatively based on the exposure of a dolphin calf—most marine mammals are much larger and effects to these larger animals would likely be less severe).
- Additionally, the model predicted no exposures to levels associated with mortality.
- Animals would need to approach within less than approximately 79–179 m of the sonobuoy to be injured
 - Unlike for sonar, an animal would need to be present at the exact moment of the explosion(s).

TTS—NMFS believes that the proposed mitigation measures will allow the Navy to minimize the exposure of marine mammals to underwater detonations that would result in TTS for the following reasons:

- 31 animals were predicted to be exposed to explosive levels that would result in TTS, however, for the same reasons as above (i.e., surveillance and close approach to source), NMFS believes that most modeled TTS takes can be avoided, especially dolphins, mysticetes and sperm whales, and social pelagic species.
- However, more cryptic, deep-diving species (beaked whales and *Kogia* sp.) are less likely to be visually detected and could potentially be exposed to explosive levels expected to cause TTS.

The Stranding Response Plan will minimize the probability of distressed live-stranded animals responding to the

proximity of sonar in a manner that further stresses them or increases the potential likelihood of mortality.

The incorporation of the Navy's proposed PAAs into their planning process along with the plan not to conduct more than 4 major exercises within these areas should ultimately result in a reduction in the number of marine mammals exposed to MFAS/HFAS (because these PAAs are anticipated to have higher densities of animals), a reduction in the number of animals exposed while engaged in feeding behaviors (because these areas are particularly productive), and an increased awareness of their potential presence when conducting activities in those important areas. Additionally, the Navy's plan to minimize both the helicopter dipping and object detection activities within the NARW critical habitat during the time when the most calves and mothers are present should result in the minimization of exposure of cow/calf pairs to MFAS/HFAS.

NMFS has preliminarily determined that the Navy's proposed mitigation measures (from the LOA application), along with the Planning Awareness Areas, the helicopter dipping and object detection minimization measures, and the Stranding Response Plan (and when the Adaptive Management (see Adaptive Management below) component is taken into consideration) are adequate means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

These mitigation measures may be refined, modified, removed, or added to prior to the issuance of the final rule based on the comments and information received during the public comment period.

Research and Conservation Measures for Marine Mammals

The Navy is working towards a better understanding of marine mammals and sound in ways that are not directly related to the MMPA process. The Navy highlights some of those ways in the section below. Further, NMFS is working on a long-term stranding study that will be supported by the Navy by way of a funding and information sharing component (see below).

Navy Research

The Navy provides a significant amount of funding and support to

marine research. The agency is providing approximately \$26 million annually between FY07–FY09 to universities, research institutions, federal laboratories, private companies, and independent researchers around the world to study marine mammals. The U.S. Navy sponsors 50 percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted both in the U.S. and worldwide. Major topics of Navy-supported research include the following:

- Better understanding of marine species distribution and important habitat areas,
- Developing methods to detect and monitor marine species before and during training,
- Understanding the effects of sound on marine mammals, sea turtles, fish, and seabirds, and
- Developing tools to model and estimate potential effects of sound.

This research is directly applicable to Atlantic Fleet training activities, particularly with respect to the investigations of the potential effects of underwater noise sources on marine mammals and other protected species. Proposed training activities employ sonar and underwater explosives, which introduce sound into the marine environment.

The Marine Life Sciences Division of the Office of Naval Research currently coordinates six programs that examine the marine environment and are devoted solely to studying the effects of noise and/or the implementation of technology tools that will assist the Navy in studying and tracking marine mammals. The six programs are:

1. Environmental Consequences of Underwater Sound,
2. Non-Auditory Biological Effects of Sound on Marine Mammals,
3. Effects of Sound on the Marine Environment,
4. Sensors and Models for Marine Environmental Monitoring,
5. Effects of Sound on Hearing of Marine Animals, and
6. Passive Acoustic Detection, Classification, and Tracking of Marine Mammals.

The Navy has also developed the technical reports referenced within this document, which include the Marine Resource Assessments and the Navy OPAREA Density Estimates reports. Furthermore, research cruises by the NMFS and by academic institutions have received funding from the U.S. Navy. For instance, the ONR contributed financially to the Sperm Whale Seismic Survey (SWSS) in the

Gulf of Mexico, coordinated by Texas A&M. The goals of the SWSS are to examine effects of the oil and gas industry on sperm whales and what mitigations would be employed to minimize adverse effects to the species. All of this research helps in understanding the marine environment and the effects that may arise from the use of underwater noise in the Gulf of Mexico and western North Atlantic Ocean.

The Navy has sponsored several workshops to evaluate the current state of knowledge and potential for future acoustic monitoring of marine mammals. The workshops brought together acoustic experts and marine biologists from the Navy and other research organizations to present data and information on current acoustic monitoring research efforts and to evaluate the potential for incorporating similar technology and methods on instrumented ranges. However, acoustic detection, identification, localization, and tracking of individual animals still requires a significant amount of research effort to be considered a reliable method for marine mammal monitoring. The Navy supports research efforts on acoustic monitoring and will continue to investigate the feasibility of passive acoustics as a potential mitigation and monitoring tool.

Overall, the Navy will continue to fund ongoing marine mammal research, and is planning to coordinate long-term monitoring/studies of marine mammals on various established ranges and OPAREAS. The Navy will continue to research and contribute to university/external research to improve the state of the science regarding marine species biology and acoustic effects. These efforts include mitigation and monitoring programs; data sharing with NMFS and via the literature for research and development efforts; and future research as described previously.

Long-Term Prospective Study

Apart from this proposed rule, NMFS, with input and assistance from the Navy and several other agencies and entities, will perform a longitudinal observational study of marine mammal strandings to systematically observe for and record the types of pathologies and diseases and investigate the relationship with potential causal factors (e.g., tactical sonar, seismic, weather). The study will not be a true "cohort" study, because we will be unable to quantify or estimate specific sonar or other sound exposures for individual animals that strand. However, a cross-sectional or correlational analysis, a method of descriptive rather than analytical

epidemiology, can be conducted to compare population characteristics, e.g., frequency of strandings and types of specific pathologies between general periods of various anthropogenic activities and non-activities within a prescribed geographic space. In the long-term study, we will more fully and consistently collect and analyze data on the demographics of strandings in specific locations and consider anthropogenic activities and physical, chemical, and biological environmental parameters. This approach in conjunction with true cohort studies (tagging animals, measuring received sounds, and evaluating behavior or injuries) in the presence of activities and non-activities will provide critical information needed to further define the impacts of MTEs and other anthropogenic and non-anthropogenic stressors. In coordination with the Navy and other federal and non-federal partners, the comparative study will be designed and conducted for specific sites during intervals of the presence of anthropogenic activities such as sonar transmission or other sound exposures and absence to evaluate demographics of morbidity and mortality, lesions found, and cause of death or stranding. Additional data that will be collected and analyzed in an effort to control potential confounding factors include variables such as average sea temperature (or just season), meteorological or other environmental variables (e.g., seismic activity), fishing activities, etc. All efforts will be made to include appropriate controls (i.e., no tactical sonar or no seismic); environmental variables may complicate the interpretation of "control" measurements. The Navy and NMFS along with other partners are evaluating mechanisms for funding this study.

Monitoring

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking". The MMPA implementing regulations at 50 CFR Section 216.104(a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

(a) An increase in the probability of detecting marine mammals, both within

the safety zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below.

(b) An increase in our understanding of how many marine mammals are likely to be exposed to levels of MFAS/HFAS (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

(c) An increase in our understanding of how marine mammals respond to MFAS/HFAS (at specific received levels), explosives, or other stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:

- Behavioral observations in the presence of MFAS/HFAS compared to observations in the absence of sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information).
- Physiological measurements in the presence of MFAS/HFAS compared to observations in the absence of tactical sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information).
- Pre-planned and thorough investigation of stranding events that occur coincident to naval activities.
- Distribution and/or abundance comparisons in times or areas with concentrated MFAS/HFAS versus times or areas without MFAS/HFAS.

(d) An increased knowledge of the affected species.

(e) An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

Proposed Monitoring Plan for the AFAST Study Area

The Navy has submitted a draft Monitoring Plan for AFAST, which may be viewed at NMFS' Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS and the Navy have worked together on the development of this plan in the months preceding the publication of this proposed rule; however, we are still refining the plan and anticipate that it will contain more details by the time it is finalized in advance of the issuance of the final rule. Additionally, the plan may be modified or supplemented based on comments or new information

received from the public during the public comment period. A summary of the primary components of the plan follows.

The draft Monitoring Plan for AFAST has been designed as a collection of focused "studies" (described fully in the AFAST Monitoring Plan) to gather data that will allow the Navy to address the following questions:

(a) Are marine mammals exposed to MFAS, especially at levels associated with adverse effects (i.e., based on NMFS' criteria for behavioral harassment, TTS, or PTS)? If so, at what levels are they exposed?

(b) If marine mammals are exposed to MFAS in the AFAST Study Area, do they redistribute geographically as a result of continued exposure? If so, how long does the redistribution last?

(c) If marine mammals are exposed to MFAS, what are their behavioral responses to various levels?

(d) Is the Navy's suite of mitigation measures for MFAS (e.g., measures agreed to by the Navy through permitting) effective at avoiding TTS, injury, and mortality of marine mammals?

Data gathered in these studies will be collected by qualified, professional marine mammal biologists that are experts in their field. They will use a combination of the following methods to collect data:

- Contracted vessel and aerial surveys.
- Passive acoustics.
- Marine mammal observers on Navy ships.

In the four proposed study designs (all of which cover multiple years), the above methods will be used separately or in combination to monitor marine mammals in different combinations before, during, and after training activities utilizing MFAS/HFAS. Table 7 contains a summary of the monitoring effort that is planned for each study in each year.

This monitoring plan has been designed to gather data on all species of marine mammals that are observed in the AFAST study area. The Plan recognizes that deep-diving and cryptic species of marine mammals such as beaked whales have a low probability of detection (Barlow and Gisiner, 2006). Therefore, methods will be utilized to attempt to address this issue (e.g., passive acoustic monitoring).

North Atlantic right whales will also be given particular attention during monitoring in the AFAST study area, although monitoring methods will be the same for all species. Within the AFAST study area, the Northwestern Atlantic provides unique breeding and

calving habitat for North Atlantic right whales, and as a result, critical habitat has been designated for one calving ground (off Georgia and northern

Florida) and two feeding areas (Cape Cod Bay and the Great South Channel). North Atlantic right whales will be given particular attention in the form of

focal follows (e.g., collect behavioral data using the Big Eyes binoculars, and observe the behavior of any animals that are seen) when observed.

STUDY 1 and 3 (exposures and behavioral responses)	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys	Award monitoring contract, develop SOP, obtain permits	SEASWIT1, shallow COMPTUEX, or ULT - 30 hours	SEASWIT1, shallow COMPTUEX, or ULT - 30 hours	SEASWIT1, shallow COMPTUEX, or ULT - 30 hours	SEASWIT1, shallow COMPTUEX, or ULT - 30 hours	SEASWIT1, shallow COMPTUEX, or ULT - 30 hours
Marine Mammal Observers	Opportunistic as staff and SOP developed	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours
Vessel surveys (study 3 only)	Award monitoring contract, develop SOP	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT - 100 hours
STUDY 2 (geographic redistribution)	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys before and after training events	SEASWIT1, shallow COMPTUEX, or ULT- 24 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours
Onslow Bay and Jacksonville Aerial surveys	288 hours	288 hours	576 hours	576 hours	576 hours	576 hours
Onslow Bay and Jacksonville Shipboard surveys	288 hours	288 hours	576 hours	576 hours	576 hours	576 hours
Passive Acoustics	Award monitoring contract 1 HARP in place and use of pop-up buoys for exercise monitoring Begin recording	Installation of remaining 3 HARPS (4 total) and use of pop-up buoys for exercise monitoring Begin recording and data analysis	Continue recording and data analysis	Continue recording and data analysis	Continue recording and data analysis	Continue recording and data analysis
STUDY 4 (mitigation effectiveness)	FY08	FY09	FY10	FY11	FY12	FY13
Marine mammal observers/lookout comparison	SEASWIT1 or ULT- 24 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours
Aerial surveys before and after training events	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours

Table 7. Summary of monitoring effort proposed in draft Monitoring Plan for AFAST

In addition to the Monitoring Plan for AFAST, by the end of 2009, the Navy will have completed an Integrated Comprehensive Monitoring Program (ICMP). The ICMP will provide the overarching structure and coordination that will, over time, compile data from both range specific monitoring plans (such as AFAST, the Hawaii Range complex, and the Southern California Range Complex) as well as Navy funded research and development (R&D) studies. The primary objectives of the ICMP are:

- To monitor Navy training events, particularly those involving mid-frequency sonar and underwater detonations, for compliance with the terms and conditions of ESA Section 7 consultations or MMPA authorizations;
- To collect data to support estimating the number of individuals exposed to sound levels above current regulatory thresholds;
- To assess the efficacy of the Navy's current marine species mitigation;
- To add to the knowledge base on potential behavioral and physiological effects to marine species from mid-frequency active sonar and underwater detonations; and
- To assess the practicality and effectiveness of a number of mitigation tools and techniques (some not yet in use).

More information about the ICMP may be found in the draft Monitoring Plan for AFAST.

Past Monitoring in the AFAST Study Area

NMFS has received four total monitoring reports addressing MFAS use off the Atlantic Coast or in the Gulf of Mexico. The data contained in the After Action Reports (AAR) have been considered in developing mitigation and monitoring measures for the proposed activities contained in this rule. The Navy's AAR may be viewed at: [http://](http://www.nmfs.noaa.gov/pr/permits/incidental.htm)

www.nmfs.noaa.gov/pr/permits/incidental.htm. NMFS has reviewed these reports and has summarized the results, as related to marine mammal observations, below.

ESG COMPTUEX 08-01

The USS Nassau Expeditionary Strike Group COMPTUEX 08-01 was conducted from November 28, 2007 through December 14, 2007. The ASW training conducted during the ESG COMPTUEX involved ships, submarines, aircraft, non-explosive exercise weapons, and other training related devices and occurred within portions of the Cherry Point and Charleston/Jacksonville Operating Areas (OPAREAS; see Figure A-1, Appendix A). MFA sonar equipped ships that participated in ESG COMPTUEX 08-01 included Ticonderoga-class guided missile cruisers (CG), Arleigh Burke-class guided missile destroyers (DDG), and Oliver Hazard Perry-class guided missile frigates (FFG). The surface combatants employed ANSQS-53C/ANSQS 56 sonar, and the associated aviation assets employed SH-60B/F/R with AN/AQS-13F or AQS-22 dipping sonar and AN/SSQ-62B1C/D/E Directional Command Activated Sonobuoy System (DICASS). The MFA sonar equipped submarines that participated were SSNs with AN/BQQ-5 sonar.

During ESG COMPTUEX 08-01, 141-161 hours of MFAS and 38-46 DICASS sonobuoy usage was reported.

Navy lookouts did not report any sightings of marine mammals during ESG COMPTUEX 08-01.

Combined CSG COMPTUEX/JTFEX 07-01

USS TRUMAN 07-1 CSG COMPTUEX/JTFEX was conducted from July 2-August 1, 2007 and involved a Carrier Strike Group. Ships assigned to this CSG included: two non-

MFAS-equipped ships, and five MFAS-equipped ships and one submarine. Other participating U.S. Navy units representing support and opposition forces included one submarine and four MFAS-equipped ships. France participated with three MFAS-equipped ships. Allied nations participating in the exercise were also provided the mitigation measures in Appendix B and the MSAT. There were two ASW SH-60 helicopters and two ASW P-3 Maritime Patrol Aircraft also participating.

During USS Truman 07-1 CSG COMPTUEX/JTFEX MFAS was only used during carefully planned exercise events and for only a small subset of any given exercise time frame. During this exercise, 340-355 hours of hull-mounted MFAS, 50-65 hours of dipping sonar, and use of 170 DICASS sonobuoys were reported.

There were 49 total sighting events and three passive detections. An estimated 374-416 marine mammals and four sea turtles were observed during USS Truman 07-1 CSG COMPTUEX/JTFEX (See Table 8). There were two sighting events occurring during active sonar use. The first occurred with the observing ship observing five dolphins while using MFAS and a second ship was active within the vicinity of this sighting. The second occurred with the observing ship sighting two pilot whales while not active, but a second ship was active at a distance which could have had an influence on the sighted marine mammals. On four instances, vessels maneuvered to avoid the path of a marine mammal or increase the distance between the ship and animal.

None of the watchstanders reported any sort of "observed effect" on the marine mammals that were observed in the two instances when the sonar was on.

Date Quality	Date Time (Local)	Range (Yds) & Length of Observation (Minutes)	Description of event	Number of animals	MEAS Status
0	7/02- 8/01	-- --	12 of sightings were of dolphins and porpoises which generally closed the ship to ride the bow wave. The size of each pod varied between 3 and 30. (Estimate of animal # is extremely tenuous)	140-160	Not Active
3	7/03 1600	-- 58 min	Clear day, 10 dolphins detected	10	Not Active
3	7/04 1225	-- 2 min	Clear Day, sea turtle passes alongside ship	1	Not Active
3	7/05 0827	-- 90 min	Clear Day, dolphins detected swimming and jumping	5	Not Active
3	7/05 1237	-- 150 min	Clear Day, 15 dolphins detected swimming and jumping	15	Not Active
3	7/06 1315	-- 10 min	Clear Day, sea turtle passes alongside ship	1	Not Active
3	7/07 0937	-- 210 min	Clear Day, 35 dolphins swimming and jumping	35	Not Active
3	7/07 1546	-- 30 min	Clear Day, 10 dolphins swimming, jumping and spyhopping	10	Not Active
3	7/08 0845	-- 45 min	Clear Day, 8 dolphins swimming	8	Not Active
2	7/09 1650	-- 20 min	Clear Day, 1 Shark (Unnecessary observation included for discussion purposes only)	1	Not Active
2	7/10 1245	-- 30 min	Clear Day, killer whale sighted	1	Not Active
2	7/14 1430	-- 10 min	Clear Day, 14 dolphins sighted	15	Not Active
3	7/15 1634	-- 15 min	Clear Day, 10 dolphins swimming, jumping and spyhopping	10	Not Active
3	7/18 1435	-- 20 min	Clear Day, 7 dolphins swimming and jumping	7	Not Active
2	7/20 0735	-- 3 min	Clear Day, sea turtle passes alongside ship	1	Not Active
0	7/23 0330	-- 38 min	Biologics heard on WQC-2, Under Water Telephone (UWT), no correlating visual	--	Not Active
1	7/23 1807	100 Yd --	Dolphins sighted within 100yds, ship maneuvered to open distance	--	Not Active
1	7/24 0912	200+Yd --	50+ dolphins over 200 yds, maintained course	50+	Not Active
1	7/24 1412	-- --	2 dolphins sighted	2	Not Active
1	7/25 0919	-- --	Possible submerged whale, only dark shades were visible on surface	1	Not Active
2	7/25 1237	100 Yd --	Dolphins 100yds off the bow, altered course to open distance	15+	Not Active
2	7/26 1538	-- 15 min	Clear Day, 5 dolphins sighted, Sonar active, secured upon sighting. Additional ship concurrently active.	5	ACTIVE

Table 8. Combined CSG COMPTUEX/JTFX 07-01 watchstander report

*Data Quality	Date-Time (Local)	Range (Yds) & Length of observation (Minutes)	Description of event	# of animals	MFAS Status
2	7/26 1700	1000 Yd	2 pilot whales, ID through big eyes, approx 1,000yds. Additional ship concurrently active. Estimated received SPL, 110 dB re 1µPa.	2	ACTIVE
1	7/26 1918	--	Whale sighted	1	Not Active
1	7/26 1921	--	Whale sighted	1	Not Active
2	7/26 1935	500+ Yd	2 medium size whales approx 500+ yds from ship, maneuvered to avoid	2	Not Active
1	7/27 1400 & 1434	--	Twice on July 27th three Humpback Whales were sighted, each time they surfaced and showed flukes. (Likely the same animals on both sightings due to extremely close spatial and temporal proximity)	3	Not Active
2	7/28 0948	200+ Yd	2-3 Pilot whales off port bow, 200yds+ and opening	2-3	Not Active
0	7/28 2221	4 min	Biologics heard on WQC-2, UWT, no correlating visual	--	Not Active
2	7/29 0625	33 Yd	Dolphins riding ship's bow wave, maintained course/speed	20+	Not Active
0	7/29 0632	4 min	Biologics heard on WQC-2, UWT, no correlating visual	--	Not Active
3	7/29 1455	10 min	Clear Day, 15 dolphins swimming, jumping and spyhopping	15	Not Active
2	7/30 0925	3 min	Clear Day, sea turtle passes alongside ship	1	Not Active
1	7/30 1938	--	Whale sighted	1	Not Active
1	7/31 0732	--	Whale sighted	1	Not Active
2	7/31 0750	750+ Yd	Pilot whale off port beam	1	Not Active
3	7/31 1735	25 min	Clear Day, 5 dolphins swimming, jumping and spyhopping	5	Not Active
1	8/02 --	4000 Yd	Ten Pilot whales surfaced about two miles from the ship and then dove deep. (Report is after the official end of the exercise)	10	Not Active
SUMMARY: 49 Total Sighting Events, 3 passive detections, 374-416 Mammals sighted, 4 sea turtles sighted					

**Data quality is a relative assessment of the data provided by the participants, categorized as follows: 0 – Nominal level data, 1 – Data missing at least three critical components, 2 – Data missing two critical components, 3 – Data missing one critical component, 4 – Data has all needed components.*

Table 8 continued. Combined CSG COMPTUEX/JTFEX 07-01 watchstander report.

ESG COMPTUEX 07-01

This exercise was conducted in October 2006 in two large areas seaward of the shelf break off the coasts of North and South Carolina. The types of ASW training conducted during ESG COMPTUEX07-1 involved the use of ships, submarines, aircraft, non-explosive exercise weapons, and other training related devices. Exercise planning estimated use of 114 hours of MFA sonar and 118 DICASS sonobuoys. Actual use was 101.4 hours of MFA sonar and 35 DICASS sonobuoys.

There was one marine mammal sighting during the exercise. A surface ship sighted approximately 12 “dolphins” “playing” within 1,000 yds. The group was engaged in the combined battle problem, with ships intermittently active and passive. All

units shut down MFAS for approximately 2 hours.

None of the watchstanders reported any sort of “observed effect” on the marine mammals that were observed, either with or without the operation of sonar.

JTFEX 06-02

This exercise was conducted from July 21–29, 2006, largely within the Cherry Point OPAREA, off the shelf break of North Carolina. The types of ASW training conducted during JTFEX 06-2 involved the use of ships, submarines, aircraft, non-explosive exercise weapons, and other training related devices. In addition to the JTFEX major exercise, a precursor event three days prior to the exercise was included in the analysis due to the temporal proximity of the exercise. The precursor

event estimated sonar use was 22.5 hours of surface vessel MFAS and 36 DICASS sonobuoys. The planned exercise, exclusive of the precursor events, was estimated at 200–225 hours of SQS-53C MFAS, 100–125 hours of surface vessel SQS-56 MFAS and 50 DICASS sonobuoys used. In reality, 108 hours of MFA sonar and less than 50 sonobuoys were used for both the precursor events and the JTFEX 06-2 exercise.

During the exercise, all surface vessels and aircraft participating in ASW events were involved in the visual surveillance for marine mammals. There were 29 instances when marine mammals (individuals or pods) were detected, all by surface vessel exercise participants. MFAS was shut down seven times by exercise participants due to the detected marine mammals as detailed in Table 9.

These 29 marine mammal detections by exercise participants totaled 120 quantified marine mammals, and 10 sightings of multiple animals, or “pods” that could not be quantified. Assuming each pod consisted of at least four animals; the estimated total number of marine mammals detected was 160 animals. Of those detections when sonar was active (7 of the 29 in Table 9), 18 animals were quantified, and 4 reports

were of multiple animals that could not be quantified. Using the described estimating procedure, approximately 34 marine mammals were in the vicinity of surface ships during MFAS use periods. In only one instance (see Table 9) were the animals present within a range requiring power reduction. In two instances described in Table 9, 12 dolphins (sighting 27 (8 animals) and sighting 29 (estimated 4 animals)) were

sighted closing on the ship and later engaged in bow riding. In these instances, sonar was shutdown at a range of 3,000 yards.

None of the watchstanders reported any sort of “observed effect” on the marine mammals that were observed, either with or without the operation of MFAS.

	July Date- Time (Z)	Lost Hours	Description of Actions Taken
1	7/21-1445		Surface ship sighted 1 "unidentified gray whale" transiting the area at 600 yds. MFAS not active.
2	7/22-1812		Surface ship sighted 3 "dolphins playing" at 550 yds. MFAS not active.
3	7/23-2057		Surface ship sighted 6 "dolphins" transiting the area at 550 yds. MFAS not active.
4	7/23-2237		Surface ship sighted 3 "dolphins" at 20 yds, closing on ship to engage in "bow riding". MFAS not active.
5	7/23-2240		Surface ship sighted 22 "dolphins" engaged in "bow riding" at 25-100 yds. MFAS not active.
6	7/24-1245		Surface ship sighted an undetermined number of "dolphins playing" at 500 – 800 yds. MFAS not active.
7	7/24-1338		Surface ship sighted 3 "unknown gray whales with rounded spout pattern" at 200 yds. MFAS not active.
8	7/24-1425		Surface ship sighted an undetermined number of "dolphins playing" at an unspecified range. MFAS not active.
9	7/24-1646		Surface ship sighted an undetermined number of "dolphins playing" at an unspecified range. MFAS not active.
10	7/24-2136		Surface ship sighted 3 "pilot whales" at 500 yds. MFAS not active.
11	7/24-2324		Surface ship sighted 3 "dolphins" engaged in what was described as "swimming" at 40 yds. MFAS not active.
12	7/25-0200		Surface ship sighted an undetermined number of "dolphins playing" at an unspecified range. MFAS not active.
13	7/25-0245	1.0	Surface ship sighted undetermined number of "dolphins" engaged in what was described as "feeding". Range was not estimated. MFAS active at the time of sighting. SONAR was secured and continued to monitor.
14	7/25-0325	0.5	Surface ship sighted undetermined number of "dolphins" engaged in what was described as "playing". Range was not estimated. MFAS active at the time of sighting. SONAR was secured and continued to monitor.
15	7/25-1352		Surface ship sighted an undetermined number of "dolphins playing" at 200 yds. MFAS not active.
16	7/25-2200		Surface ship sighted 6 "dolphins playing", at 200 yds. MFAS not active.
17	7/26-1600		Surface ship sighted 20 "dolphins" playing and bow wave riding. MFAS not active.
18	7/26-1724		Surface ship sighted 15 "dolphins" at 700 yds. MFAS not active.
19	7/26-1817		Surface ship sighted 1 "dolphin" at 500 yds, transiting. MFAS not active.
20	7/26-1930		Surface ship sighted 1 "whale" at 1,500 yds, transiting in the opposite direction as the ship. MFAS not active.
21	7/26-2059		Surface ship sighted 7 "unknown whales" at 550 yds. MFAS not active.

Table 9. JTFX 06-02 watchstander report

22	7/26-2216	0.5	Surface ship sighted undetermined number of "dolphins" engaged in what was described as "playing". Range was not estimated. MFAS active at the time of sighting, SONAR was secured and continued to monitor.
23	7/27-0052		Surface ship sighted 6 "dolphins" bow riding at 40-60 yds. MFAS not active.
24	7/27-0325		Surface ship sighted 2 "dolphins playing" at an unspecified range. MFAS not active.
25	7/27-1043		Surface ship sighted undetermined number of "dolphins" engaged in what was described as "feeding" at 200 yds. MFAS not active.
26	7/27-1133	0.25	Surface ship sighted 8 "unidentified whales" engaged in what was described as "transiting or feeding". Range was estimated at 1,000 yds. MFAS active at the time of sighting. SONAR was secured until mammals clear of ship.
27	7/27-1402	0.3	Surface ship sighted 8 "dolphins" closing on ship to engage in "bow riding". Range was estimated at 3,000 yds. MFAS active at the time of sighting, SONAR was secured until mammals clear of ship. Also sighted was 1 "unidentified whale" engaged in what was described as "transiting". Range was estimated at 10,000 yds.
28	7/27-1425	0.25	Surface ship sighted 1 "unidentified whale" engaged in what was described as "transiting". Range was estimated at 4,000 yds. MFAS active at the time of sighting. SONAR was secured until mammals clear of ship.
29	7/27-1731	0.5	Surface ship sighted undetermined number of "dolphins" closing on ship to engage in "bow riding". Range was estimated at 3,000 yds. MFAS active at the time of sighting. SONAR was secured until mammals clear of ship.
Participant Hours Lost		3.3	

Table 9 continued. JTFX 06-02 watchstander report

General Conclusions Drawn From Review of Monitoring Reports

Because NMFS has received relatively few monitoring reports from sonar training in the AFAST Study Area, and none that have utilized independent aerial or vessel-based observers (though they will be required by this LOA (see Monitoring)), it is difficult to draw biological conclusions. However, NMFS can draw some general conclusions from the content of the monitoring reports:

(a) Data from watchstanders is generally useful to indicate the presence or absence of marine mammals within the safety zones (and sometimes without) and to document the implementation of mitigation measures, but does not provide useful species specific information or behavioral data. Data gathered by independent observers can provide very valuable information at a level of detail not possible with watchstanders (such as data gathered by independent, biologist monitors in Hawaii and submitted to NMFS in a monitoring report, which indicated the presence of sub-adult sei whales in the Hawaiian Islands in fall, potentially indicating the use of the area for breeding).

(b) Though it is by no means conclusory, it is worth noting that no instances of obvious behavioral disturbance were observed by the Navy watchstanders. Though of course, these observations only cover the animals that were at the surface (or slightly below in the case of aerial surveys) and within the distance that the observers can see with the big-eye binoculars or from the aircraft.

(c) NMFS and the Navy need to more carefully designate what information should be gathered during monitoring, as some reports contain different information, making cross-report comparisons difficult.

Adaptive Management

Adaptive Management was addressed above in the context of the Stranding Response Plan because that Section will be a stand-alone document. More specifically, the final regulations governing the take of marine mammals incidental to Navy training exercises in the AFAST Study Area will contain an adaptive management component. Our understanding of the effects of MFAS/HFAS and explosives on marine mammals is still in its relative infancy, and yet the science in this field is evolving fairly quickly. These

circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations (though not the AFAST Study Area). The use of adaptive management will give NMFS the ability to consider new data from different sources to determine (in coordination with the Navy), on an annual basis if new or modified mitigation or monitoring measures are appropriate for subsequent annual LOAs. Following are some of the possible sources of applicable data:

- Results from the Navy's monitoring from the previous year (either from the AFAST Study Area or other locations)
- Results from specific stranding investigations (either from the AFAST Study Area or other locations, and involving coincident MFAS/HFAS of explosives training or not involving coincident use)
- Results from the Long Term Prospective Study described below
- Results from general marine mammal and sound research (funded by the Navy (described below) or otherwise)

Mitigation measures could be modified or added if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable. NMFS could also coordinate with the Navy to modify or add to the existing monitoring requirements if the new data suggest that the addition of a particular measure would likely fill in a specifically important data gap.

Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking". Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. Some of the reporting requirements are still in development and the final rule may contain additional details not contained in the proposed rule. Additionally, proposed reporting requirements may be modified, removed, or added based on information or comments received during the public comment period. Currently, there are several different reporting requirements pursuant to these proposed regulations:

General Notification of Injured or Dead Marine Mammals

Navy personnel will ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations. The Navy will provide NMFS with species or description of the animal (s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). The AFAST Stranding Response Plan contains more specific reporting requirements for specific circumstances.

IEER

A yearly report detailing the number of exercises along with the hours of associated marine mammal survey and associated marine mammal sightings, number of times employment was delayed by sightings, and the number of total detonated charges and self-scuttled charges will be submitted to NMFS.

MFAS/HFAS Mitigation/Navy Watchstanders

The Navy will submit an After Action Report to the Office of Protected Resources, NMFS, within 120 days of the completion of a Major Training Exercise (SEASWIT, COMPTUEX, JTFEX, but not Group Sails). For other ASW exercises the Navy will submit a yearly summary report. These reports will, at a minimum, include the following information:

- The estimated number of hours of sonar operation, broken down by source type.
- If possible, the total number of hours of observation effort (including observation time when sonar was not operating).
- A report of all marine mammal sightings (at any distance—not just within a particular distance) to include, when possible and to the best of their ability, and if not classified:
 - Species or animal type.
 - Number of animals sighted.
 - Location of marine mammal sighting.
 - Distance of animal from any operating sonar sources.
 - Whether animal is fore, aft, port, starboard.
 - Direction animal is moving in relation to source (away, towards, parallel).
 - Any observed behaviors of marine mammals.
 - The status of any sonar sources (what sources were in use) and whether or not they were powered down or shut down as a result of the marine mammal observation.
 - The platform that the marine mammals were sighted from.

Monitoring Report

Although the draft Monitoring Plan for AFAST contains a general description of the monitoring that the Navy plans to conduct (and that NMFS has analyzed) in the AFAST Study Area, the detailed analysis and reporting protocols that will be used for the AFAST monitoring plan are still being refined at this time. The draft AFAST Monitoring plan may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Standard marine species sighting forms will be used by Navy lookouts and biologists to standardize data collection and data collection methods will be standardized across ranges to allow for comparison in different geographic locations. Reports of the required monitoring will be submitted to NMFS on an annual basis as well as in the form of a multi-year report that compiles all five years worth

of monitoring data (reported at end of fourth year of rule—in future rules will include the last year of the prior rule).

AFAST Comprehensive Report

The Navy will submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and IEER exercises for which individual reports are required in § 216.175(d)–(f). This report will be submitted at the end of the fourth year of the rule (December 2012), covering activities that have occurred through June 1, 2012. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

Comprehensive National ASW Report

The Navy will submit a draft Comprehensive National ASW Report that analyzes, compares, and summarizes the data gathered from the watchstanders and pursuant to the implementation of the Monitoring Plans for AFAST, the Hawaii Range Complex, the Southern California (SOCAL) Range Complex, and the Marianas range Complex. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

Estimated Take of Marine Mammals

As mentioned previously, for the purposes of MMPA authorizations, NMFS' effects assessments have two primary purposes (in the context of the AFAST LOA, where subsistence communities are not present): (1) To put forth the permissible methods of taking within the context of MMPA Level B Harassment (behavioral harassment), Level A Harassment (injury), and mortality (i.e., identify the number and types of take that will occur); and (2) to determine whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival).

In the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations section, NMFS' analysis identified the lethal responses, physical trauma, sensory impairment

(permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations. In this section, we will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the specific training activities that the Navy is proposing in the AFAST Study Area.

Definition of Harassment

As mentioned previously, with respect to military readiness activities, Section 3(18)(B) of the MMPA defines "harassment" as: (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Level B Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section, the following are the types of effects that fall into the Level B Harassment category:

Behavioral Harassment—Behavioral disturbance that rises to the level described in the definition above, when resulting from exposures to MFAS/HFAS or underwater detonations, is considered Level B Harassment. Some of the lower level physiological stress responses discussed in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section: Stress Section will also likely co-occur with the predicted harassments, although these responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. When Level B Harassment is predicted based on estimated behavioral responses, those takes may have a stress-related physiological component as well.

In the effects section above, we described the Southall *et al.* (2007) severity scaling system and listed some examples of the three broad categories of behaviors: (0–3: Minor and/or brief

behaviors); 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival); 7–9 (Behaviors considered likely to affect the aforementioned vital rates). Generally speaking, MMPA Level B Harassment, as defined in this document, would include the behaviors described in the 7–9 category, and a subset, dependent on context and other considerations, of the behaviors described in the 4–6 categories. Behavioral harassment does not generally include behaviors ranked 0–3 in Southall *et al.* (2007).

Acoustic Masking and Communication Impairment—Acoustic masking is considered Level B Harassment as it can disrupt natural behavioral patterns by interrupting or limiting the marine mammal's receipt or transmittal of important information or environmental cues.

TTS—As discussed previously, TTS can effect how an animal behaves in response to the environment, including conspecifics, predators, and prey. The following physiological mechanisms are thought to play a role in inducing auditory fatigue: effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output. Ward (1997) suggested that when these effects result in TTS rather than PTS, they are within the normal bounds of physiological variability and tolerance and do not represent a physical injury. Additionally, Southall *et al.* (2007) indicate that although PTS is a tissue injury, TTS is not, because the reduced hearing sensitivity following exposure to intense sound results primarily from fatigue, not loss, of cochlear hair cells and supporting structures and is reversible. Accordingly, NMFS classifies TTS (when resulting from exposure to either MFAS/HFAS or underwater detonations) as Level B Harassment, not Level A Harassment (injury).

Level A Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and Underwater Detonations Section, following are the types of effects that fall into the Level A Harassment category:

PTS—PTS (resulting either from exposure to MFAS/HFAS or explosive detonations) is irreversible and considered an injury. PTS results from exposure to intense sounds that cause a

permanent loss of inner or outer cochlear hair cells or exceed the elastic limits of certain tissues and membranes in the middle and inner ears and result in changes in the chemical composition of the inner ear fluids.

Tissue Damage due to Acoustically Mediated Bubble Growth—A few theories suggest ways in which gas bubbles become enlarged through exposure to intense sounds (MFAS/HFAS) to the point where tissue damage results. In rectified diffusion, exposure to a sound field would cause bubbles to increase in size. A short duration of sonar pings (such as that which an animal exposed to MFAS would be most likely to encounter) would not likely be long enough to drive bubble growth to any substantial size. Alternately, bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. The degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert because of how close an animal would need to be to the sound source to be exposed to high enough levels, especially considering the likely avoidance of the sound source and the required mitigation. Still, possible tissue damage from either of these processes would be considered an injury.

Tissue Damage due to Behaviorally Mediated Bubble Growth—Several authors suggest mechanisms in which marine mammals could behaviorally respond to exposure to MFAS/HFAS by altering their dive patterns in a manner (unusually rapid ascent, unusually long series of surface dives, etc.) that might result in unusual bubble formation or growth ultimately resulting in tissue damage (emboli, etc.) In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. There is considerable disagreement among scientists as to the likelihood of this phenomenon (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Although it has been argued that traumas from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003; Fernandez *et al.*, 2005), nitrogen bubble formation as the cause of the traumas has not been verified. If tissue damage does occur by this phenomenon, it would be considered an injury.

Physical Disruption of Tissues Resulting from Explosive Shock Wave—Physical damage of tissues resulting from a shock wave (from an explosive

detonation) is classified as an injury. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000) and gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill 1978; Yelverton *et al.*, 1973). Nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Severe damage (from the shock wave) to the ears can include tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear.

Acoustic Take Criteria

For the purposes of an MMPA incidental take authorization, three types of take are identified: Level B Harassment; Level A Harassment; and mortality (or serious injury leading to mortality). The categories of marine mammal responses (physiological and behavioral) that fall into the two harassment categories were described in the previous section.

Because the physiological and behavioral responses of the majority of the marine mammals exposed to MFAS/HFAS and underwater detonations cannot be detected or measured (not all responses visible external to animal, portion of exposed animals underwater (so not visible), many animals located many miles from observers and covering very large area, etc.) and because NMFS must authorize take prior to the impacts to marine mammals, a method is needed to estimate the number of individuals that will be taken, pursuant to the MMPA, based on the proposed action. To this end, NMFS developed acoustic criteria that estimate at what received level (when exposed to MFAS/HFAS or explosive detonations) Level B Harassment, Level A Harassment, and mortality (for explosives) of marine mammals would occur. The acoustic criteria for MFAS/HFAS and Underwater Detonations (IEER) are discussed below.

MFAS/HFAS Acoustic Criteria

Because relatively few applicable data exist to support acoustic criteria specifically for HFAS and because such a small percentage of the sonar pings that marine mammals will likely be exposed to incidental to this activity come from a HFAS source (the vast majority come from MFAS sources), NMFS will apply the criteria developed for the MFAS to the HFAS as well.

NMFS utilizes three acoustic criteria for MFAS/HFAS: PTS (injury—Level A Harassment), TTS (Level B Harassment),

and behavioral harassment (Level B Harassment). Because the TTS and PTS criteria are derived similarly and the PTS criteria was extrapolated from the TTS data, the TTS and PTS acoustic criteria will be presented first, before the behavioral criteria.

For more information regarding these criteria, please see the Navy's FEIS for AFAS.

Level B Harassment Threshold (TTS)

As mentioned above, behavioral disturbance, acoustic masking, and TTS are all considered Level B Harassment. Marine mammals would usually be behaviorally disturbed at lower received levels than those at which they would likely sustain TTS, so the levels at which behavioral disturbance are likely to occur is considered the onset of Level B Harassment. The behavioral responses of marine mammals to sound are variable, context specific, and, therefore, difficult to quantify (see Risk Function section, below). Alternately, TTS is a physiological effect that has been studied and quantified in laboratory conditions. Because data exist to support an estimate of at what received levels marine mammals will incur TTS, NMFS uses an acoustic criteria to estimate the number of marine mammals that might sustain TTS. TTS is a subset of Level B Harassment (along with sub-TTS behavioral harassment) and we are not specifically required to estimate those numbers; however, the more specifically we can estimate the affected marine mammal responses, the better the analysis.

A number of investigators have measured TTS in marine mammals. These studies measured hearing thresholds in trained marine mammals before and after exposure to intense sounds. The existing cetacean TTS data are summarized in the following bullets.

- Schlundt *et al.* (2000) reported the results of TTS experiments conducted with 5 bottlenose dolphins and 2 belugas exposed to 1-second tones. This paper also includes a reanalysis of preliminary TTS data released in a technical report by Ridgway *et al.* (1997). At frequencies of 3, 10, and 20 kHz, sound pressure levels (SPLs) necessary to induce measurable amounts (6 dB or more) of TTS were between 192 and 201 dB re 1 μPa (EL = 192 to 201 dB re 1 $\mu\text{Pa}^2 - \text{s}$). The mean exposure SPL and EL for onset-TTS were 195 dB re 1 μPa and 195 dB re 1 $\mu\text{Pa}^2 - \text{s}$, respectively.

- Finneran *et al.* (2001, 2003, 2005) described TTS experiments conducted with bottlenose dolphins exposed to 3-kHz tones with durations of 1, 2, 4, and 8 seconds. Small amounts of TTS (3 to

6 dB) were observed in one dolphin after exposure to ELs between 190 and 204 dB re 1 $\mu\text{Pa}^2 - \text{s}$. These results were consistent with the data of Schlundt *et al.* (2000) and showed that the Schlundt *et al.* (2000) data were not significantly affected by the masking sound used. These results also confirmed that, for tones with different durations, the amount of TTS is best correlated with the exposure EL rather than the exposure SPL.

- Nachtigall *et al.* (2003) measured TTS in a bottlenose dolphin exposed to octave-band sound centered at 7.5 kHz. Nachtigall *et al.* (2003a) reported TTSs of about 11 dB measured 10 to 15 minutes after exposure to 30 to 50 minutes of sound with SPL 179 dB re 1 μPa (EL about 213 dB re 1 $\mu\text{Pa}^2 - \text{s}$). No TTS was observed after exposure to the same sound at 165 and 171 dB re 1 μPa . Nachtigall *et al.* (2004) reported TTSs of around 4 to 8 dB 5 minutes after exposure to 30 to 50 minutes of sound with SPL 160 dB re 1 μPa (EL about 193 to 195 dB re 1 $\mu\text{Pa}^2 - \text{s}$). The difference in results was attributed to faster post-exposure threshold measurement—TTS may have recovered before being detected by Nachtigall *et al.* (2003). These studies showed that, for long-duration exposures, lower sound pressures are required to induce TTS than are required for short-duration tones.

- Finneran *et al.* (2000, 2002) conducted TTS experiments with dolphins and belugas exposed to impulsive sounds similar to those produced by distant underwater explosions and seismic waterguns. These studies showed that, for very short-duration impulsive sounds, higher sound pressures were required to induce TTS than for longer-duration tones.

- Finneran *et al.* (2007) conducted TTS experiments with bottlenose dolphins exposed to intense 20 kHz fatiguing tone. Behavioral and auditory evoked potentials (using sinusoidal amplitude modulated tones creating auditory steady state response [AASR]) were used to measure TTS. The fatiguing tone was either 16 (mean = 193 re 1 μPa , SD = 0.8) or 64 seconds (185–186 re 1 μPa) in duration. TTS ranged from 19–33dB from behavioral measurements and 40–45dB from ASSR measurements.

- Kastak *et al.* (1999a, 2005) conducted TTS experiments with three species of pinnipeds, California sea lion, northern elephant seal and a Pacific harbor seal, exposed to continuous underwater sounds at levels of 80 and 95 dB sensation level at 2.5 and 3.5 kHz for up to 50 minutes. Mean TTS shifts

of up to 12.2 dB occurred with the harbor seals showing the largest shift of 28.1 dB. Increasing the sound duration had a greater effect on TTS than increasing the sound level from 80 to 95 dB.

Some of the more important data obtained from these studies are onset-TTS levels (exposure levels sufficient to cause a just-measurable amount of TTS) often defined as 6 dB of TTS (for example, Schlundt *et al.*, 2000) and the fact that energy metrics (sound exposure levels (SEL), which include a duration component) better predict when an animal will sustain TTS than pressure (SPL) alone. NMFS' TTS criteria (which indicate the received level at which onset TTS (>6dB) is induced) for MFAS/HFAS are as follows:

- Cetaceans—195 dB re 1 $\mu\text{Pa}^2 - \text{s}$ (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low- or high-frequency cetaceans (Southall *et al.* (2007))

- Pinnipeds—183 dB re 1 $\mu\text{Pa}^2 - \text{s}$
A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.* (2007), as well as the Navy's AFAST LOA application.

Level A Harassment Threshold (PTS)

For acoustic effects, because the tissues of the ear appear to be the most susceptible to the physiological effects of sound, and because threshold shifts tend to occur at lower exposures than other more serious auditory effects, NMFS has determined that PTS is the best indicator for the smallest degree of injury that can be measured. Therefore, the acoustic exposure associated with onset-PTS is used to define the lower limit of the Level A harassment.

PTS data do not currently exist for marine mammals and are unlikely to be obtained due to ethical concerns. However, PTS levels for these animals may be estimated using TTS data from marine mammals and relationships between TTS and PTS that have been discovered through study of terrestrial mammals. NMFS uses the following acoustic criteria for injury:

- Cetaceans—215 dB re 1 $\mu\text{Pa}^2 - \text{s}$ (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low- or high-frequency cetaceans (Southall *et al.* (2007))

- Pinnipeds—203 dB re 1 $\mu\text{Pa}^2 - \text{s}$
These criteria are based on a 20 dB increase in SEL over that required for onset-TTS. Extrapolations from terrestrial mammal data indicate that PTS occurs at 40 dB or more of TS, and that TS growth occurs at a rate of approximately 1.6 dB TS per dB

increase in EL. There is a 34-dB TS difference between onset-TTS (6 dB) and onset-PTS (40 dB). Therefore, an animal would require approximately 20 dB of additional exposure (34 dB divided by 1.6 dB) above onset-TTS to reach PTS. A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.* (2007), as well as the Navy's AFAST LOA application. Southall *et al.* (2007) recommend a precautionary dual criteria for TTS (230 dB re 1 μPa (SPL peak pressure) in addition to 215 dB re 1 $\mu\text{Pa}^2 - \text{s}$ (SEL)) to account for the potentially damaging transients embedded within non-pulse exposures. However, in the case of MFAS/HFAS, the distance at which an animal would receive 215 dB (SEL) is farther from the source (i.e., more conservative) than the distance at which they would receive 230 dB (SPL peak pressure) and therefore, it is not necessary to consider 230 dB peak.

We note here that behaviorally mediated injuries (such as those that have been hypothesized as the cause of some beaked whale strandings) could potentially occur in response to received levels lower than those believed to directly result in tissue damage. As mentioned previously, data to support a quantitative estimate of these potential effects (for which the exact mechanism is not known and in which factors other than received level may play a significant role) do not exist. However, based on the number of years (more than 40) and number of hours of MFAS per year that the U.S. (and other countries) has operated compared to the reported (and verified) cases of associated marine mammal strandings, NMFS believes that the probability of these types of injuries is very low.

Level B Harassment Risk Function (Behavioral Harassment)

In 2006, NMFS issued the only MMPA authorization that has, as yet, authorized the take of marine mammals incidental to MFAS. For that authorization, NMFS used 173 dB SEL as the criterion for the onset of behavioral harassment (Level B Harassment). This type of single number criterion is referred to as a step function, in which (in this example) all animals estimated to be exposed to received levels above 173 dB SEL would be predicted to be taken by Level B Harassment and all animals exposed to less than 173 dB SEL would not be taken by Level B Harassment. As mentioned previously, marine mammal behavioral responses to sound are highly variable and context specific

(affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; or the prior experience of the individuals), which does not support the use of a step function to estimate behavioral harassment.

Unlike step functions, acoustic risk continuum functions (which are also called "exposure-response functions," "dose-response functions," or "stress-response functions" in other risk assessment contexts) allow for probability of a response that NMFS would classify as harassment to occur over a range of possible received levels (instead of one number) and assume that the probability of a response depends first on the "dose" (in this case, the received level of sound) and that the probability of a response increases as the "dose" increases (see Figure 3a). The Navy and NMFS have previously used acoustic risk functions to estimate the probable responses of marine mammals to acoustic exposures for other training and research programs. Examples of previous application include the Navy FEISs on the SURTASS LFA sonar (U.S. Department of the Navy, 2001c); the North Pacific Acoustic Laboratory experiments conducted off the Island of Kauai (Office of Naval Research, 2001), the Supplemental EIS for SURTASS LFA sonar (U.S. Department of the Navy, 2007d) and the FEIS for the Navy's Hawaii Range Complex (U.S. Department of the Navy, 2008). As discussed in the Effects section, factors other than received level (such as distance from or bearing to the sound source) can affect the way that marine mammals respond; however, data to support a quantitative analysis of those (and other factors) do not currently exist. NMFS will continue to modify these criteria as new data become available.

The particular acoustic risk functions developed by NMFS and the Navy (see Figures 3a and b) estimate the probability of behavioral responses to MFAS/HFAS (interpreted as the percentage of the exposed population) that NMFS would classify as harassment for the purposes of the MMPA given exposure to specific received levels of MFAS/HFAS. The mathematical function (below) underlying this curve is a cumulative probability distribution adapted from a solution in Feller (1968) and was also used in predicting risk for the Navy's SURTASS LFA MMPA authorization as well.

$$R = \frac{1 - \left(\frac{L - B}{K} \right)^{-A}}{1 - \left(\frac{L - B}{K} \right)^{-2A}}$$

Where:

R = Risk (0–1.0)

L = Received level (dB re: 1 μ Pa)

B = Basement received level = 120 dB re: 1 μ Pa

K = Received level increment above B where 50 percent risk = 45 dB re: 1 μ Pa

A = Risk transition sharpness parameter = 10 (odontocetes and pinnipeds) or 8 (mysticetes)

In order to use this function to estimate the percentage of an exposed population that would respond in a manner that NMFS classifies as Level B Harassment, based on a given received level, the values for B , K and A need to be identified.

B Parameter (Basement)—The B parameter is the estimated received level below which the probability of disruption of natural behavioral patterns, such as migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered approaches zero for the MFAS/HFAS risk assessment. At this received level, the curve would predict that the percentage of the exposed population that would be taken by Level B Harassment approaches zero. For MFAS/HFAS, NMFS has determined that $B = 120$ dB. This level is based on a broad overview of the levels at which many species have been reported responding to a variety of sound sources.

K Parameter (representing the 50 percent Risk Point)—The K parameter is based on the received level that corresponds to 50 percent risk, or the received level at which we believe 50 percent of the animals exposed to the designated received level will respond in a manner that NMFS classifies as Level B Harassment. The K parameter ($K = 45$ dB) is based on three datasets in which marine mammals exposed to mid-frequency sound sources were reported to respond in a manner that NMFS would classify as Level B Harassment. There is widespread consensus that marine mammal responses to MFA sound signals need to be better defined using controlled exposure experiments (Cox *et al.*, 2006; Southall *et al.*, 2007). The Navy is contributing to an ongoing behavioral response study in the Bahamas that is expected to provide some initial information on beaked whales, the species identified as the most sensitive to MFAS. NMFS is leading this

international effort with scientists from various academic institutions and research organizations to conduct studies on how marine mammals respond to underwater sound exposures. Additionally, the Navy plans to tag whales in conjunction with the 2008 RIMPAC exercises. Until additional data are available, however, NMFS and the Navy have determined that the following three data sets are most applicable for the direct use in establishing the K parameter for the MFAS/HFAS risk function. These data sets, summarized below, represent the only known data that specifically relate altered behavioral responses (that NMFS would consider Level B Harassment) to exposure—at specific received levels—to MFA sonar and sources within or having components within the range of MFAS (1–10 kHz).

Even though these data are considered the most representative of the proposed specified activities, and therefore the most appropriate on which to base the K parameter (which basically determines the midpoint) of the risk function, these data have limitations, which are discussed in Appendix J of the Navy's FEIS for AFAST.

1. **Controlled Laboratory Experiments with Odontocetes (SSC Dataset)**—Most of the observations of the behavioral responses of toothed whales resulted from a series of controlled experiments on bottlenose dolphins and beluga whales conducted by researchers at SSC's facility in San Diego, California (Finneran *et al.*, 2001, 2003, 2005; Finneran and Schlundt, 2004; Schlundt *et al.*, 2000). In experimental trials (designed to measure TTS) with marine mammals trained to perform tasks when prompted, scientists evaluated whether the marine mammals still performed these tasks when exposed to mid-frequency tones. Altered behavior during experimental trials usually involved refusal of animals to return to the site of the sound stimulus, but also included attempts to avoid an exposure in progress, aggressive behavior, or refusal to further participate in tests.

Finneran and Schlundt (2004) examined behavioral observations recorded by the trainers or test coordinators during the Schlundt *et al.* (2000) and Finneran *et al.* (2001, 2003, 2005) experiments. These included observations from 193 exposure sessions (fatiguing stimulus level > 141 dB re 1 μ Pa) conducted by Schlundt *et al.* (2000) and 21 exposure sessions conducted by Finneran *et al.* (2001, 2003, 2005). The TTS experiments that supported Finneran and Schlundt (2004) are further explained below:

- Schlundt *et al.* (2000) provided a detailed summary of the behavioral responses of trained marine mammals during TTS tests conducted at SSC San Diego with 1-sec tones and exposure frequencies of 0.4 kHz, 3 kHz, 10 kHz, 20 kHz and 75 kHz. Schlundt *et al.* (2000) reported eight individual TTS experiments. The experiments were conducted in San Diego Bay. Because of the variable ambient noise in the bay, low-level broadband masking noise was used to keep hearing thresholds consistent despite fluctuations in the ambient noise. Schlundt *et al.* (2000) reported that "behavioral alterations," or deviations from the behaviors the animals being tested had been trained to exhibit, occurred as the animals were exposed to increasing fatiguing stimulus levels.

- Finneran *et al.* (2001, 2003, 2005) conducted 2 separate TTS experiments using 1-sec tones at 3 kHz. The test methods were similar to that of Schlundt *et al.* (2000) except the tests were conducted in a pool with very low ambient noise level (below 50 dB re 1 μ Pa²/hertz [Hz]), and no masking noise was used. In the first, fatiguing sound levels were increased from 160 to 201 dB SPL. In the second experiment, fatiguing sound levels between 180 and 200 dB SPL were randomly presented.

Bottlenose dolphins exposed to 1-second (sec) intense tones exhibited short-term changes in behavior above received sound levels of 178 to 193 dB re 1 μ Pa (rms), and beluga whales did so at received levels of 180 to 196 dB and above.

2. **Mysticete Field Study (Nowacek *et al.*, 2004)**—The only available and applicable data relating mysticete responses to exposure to mid-frequency sound sources is from Nowacek *et al.* (2004). Nowacek *et al.* (2004) documented observations of the behavioral response of North Atlantic right whales exposed to alert stimuli containing mid-frequency components in the Bay of Fundy. Investigators used archival digital acoustic recording tags (DTAG) to record the behavior (by measuring pitch, roll, heading, and depth) of right whales in the presence of an alert signal, and to calibrate received sound levels. The alert signal was 18 minutes of exposure consisting of three 2-minute signals played sequentially three times over. The three signals had a 60 percent duty cycle and consisted of: (1) Alternating 1-sec pure tones at 500 Hz and 850 Hz; (2) a 2-sec logarithmic down-sweep from 4,500 Hz to 500 Hz; and (3) a pair of low (1,500 Hz)-high (2,000 Hz) sine wave tones amplitude modulated at 120 Hz and each 1-sec long. The purposes of the

alert signal were (a) to pique the mammalian auditory system with disharmonic signals that cover the whales' estimated hearing range; (b) to maximize the signal to noise ratio (obtain the largest difference between background noise) and (c) to provide localization cues for the whale. The maximum source level used was 173 dB SPL.

Nowacek *et al.* (2004) reported that five out of six whales exposed to the alert signal with maximum received levels ranging from 133 to 148 dB re 1 μ Pa significantly altered their regular behavior and did so in identical fashion. Each of these five whales: (i) Abandoned their current foraging dive prematurely as evidenced by curtailing their "bottom time"; (ii) executed a shallow-angled, high power (i.e., significantly increased fluke stroke rate) ascent; (iii) remained at or near the surface for the duration of the exposure, an abnormally long surface interval; and (iv) spent significantly more time at subsurface depths (1–10 m) compared with normal surfacing periods when whales normally stay within 1 m (1.1 yd) of the surface.

3. Odontocete Field Data (Haro Strait—USS SHOUP)—In May 2003, killer whales (*Orcinus orca*) were observed exhibiting behavioral responses generally described as avoidance behavior while the U.S. Ship (USS) SHOUP was engaged in MFAS in the Haro Strait in the vicinity of Puget Sound, Washington. Those observations have been documented in three reports developed by Navy and NMFS (NMFS, 2005; Fromm, 2004a, 2004b; DON, 2003). Although these observations were made in an uncontrolled environment, the sound field that may have been associated with the sonar operations was estimated using standard acoustic propagation models that were verified (for some but not all signals) based on calibrated in situ measurements from an independent researcher who recorded the sounds during the event. Behavioral

observations were reported for the group of whales during the event by an experienced marine mammal biologist who happened to be on the water studying them at the time. The observations associated with the USS SHOUP provide the only data set available of the behavioral responses of wild, non-captive animal upon actual exposure to AN/SQS-53 sonar.

U.S. Department of Commerce (National Marine Fisheries, 2005a); U.S. Department of the Navy (2004b); Fromm (2004a, 2004b) documented reconstruction of sound fields produced by USS SHOUP associated with the behavioral response of killer whales observed in Haro Strait. Observations from this reconstruction included an approximate closest approach time which was correlated to a reconstructed estimate of received level. Observations from this reconstruction included an estimate of 169.3 dB SPL which represents the mean level at a point of closest approach within a 500 m wide area which the animals were exposed. Within that area, the estimated received levels varied from approximately 150 to 180 dB SPL.

Calculation of K Parameter—NMFS and the Navy used the mean of the following values to define the midpoint of the function: (1) The mean of the lowest received levels (185.3 dB) at which individuals responded with altered behavior to 3 kHz tones in the SSC data set; (2) the estimated mean received level value of 169.3 dB produced by the reconstruction of the USS SHOUP incident in which killer whales exposed to MFA sonar (range modeled possible received levels: 150 to 180 dB); and (3) the mean of the 5 maximum received levels at which Nowacek *et al.* (2004) observed significantly altered responses of right whales to the alert stimuli than to the control (no input signal) is 139.2 dB SPL. The arithmetic mean of these three mean values is 165 dB SPL. The value of K is the difference between the value

of B (120 dB SPL) and the 50 percent value of 165 dB SPL; therefore, $K = 45$.

A Parameter (Steepness)—NMFS determined that a steepness parameter ($A = 10$) is appropriate for odontocetes and pinnipeds and $A = 8$ is appropriate for mysticetes.

The use of a steepness parameter of $A = 10$ for odontocetes for the MFAS/HFAS risk function was based on the use of the same value for the SURTASS LFA risk continuum, which was supported by a sensitivity analysis of the parameter presented in Appendix D of the SURTASS/LFA FEIS (U.S. Department of the Navy, 2001c). As concluded in the SURTASS FEIS/EIS, the value of $A = 10$ produces a curve that has a more gradual transition than the curves developed by the analyses of migratory gray whale studies (Malme *et al.*, 1984; Buck and Tyack, 2000; and SURTASS LFA Sonar EIS, Subchapters 1.43, 4.2.4.3 and Appendix D, and National Marine Fisheries Service, 2008).

NMFS determined that a lower steepness parameter ($A = 8$), resulting in a shallower curve, was appropriate for use with mysticetes and MFAS/HFAS. The Nowacek *et al.* (2004) dataset contains the only data illustrating mysticete behavioral responses to a sound source that encompasses frequencies in the mid-frequency sound spectrum. A shallower curve (achieved by using $A = 8$) better reflects the risk of behavioral response at the relatively low received levels at which behavioral responses of right whales were reported in the Nowacek *et al.* (2004) data. Compared to the odontocete curve, this adjustment results in an increase in the proportion of the exposed population of mysticetes being classified as behaviorally harassed at lower RLs, such as those reported in and is supported by the only dataset currently available.

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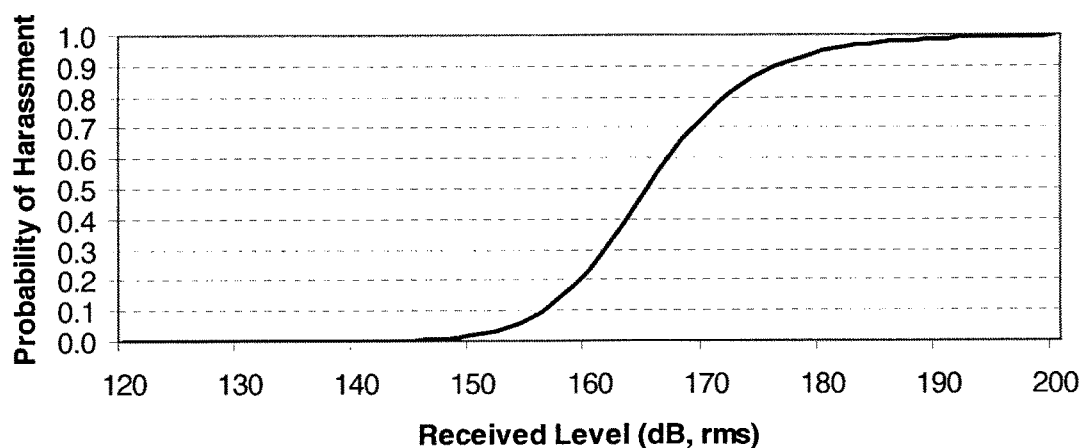
Risk Function for Odontocetes and Pinnipeds

Figure 3a. Risk function for odontocetes and pinnipeds. $B=120$ dB, $K=45$ dB, $A=10$

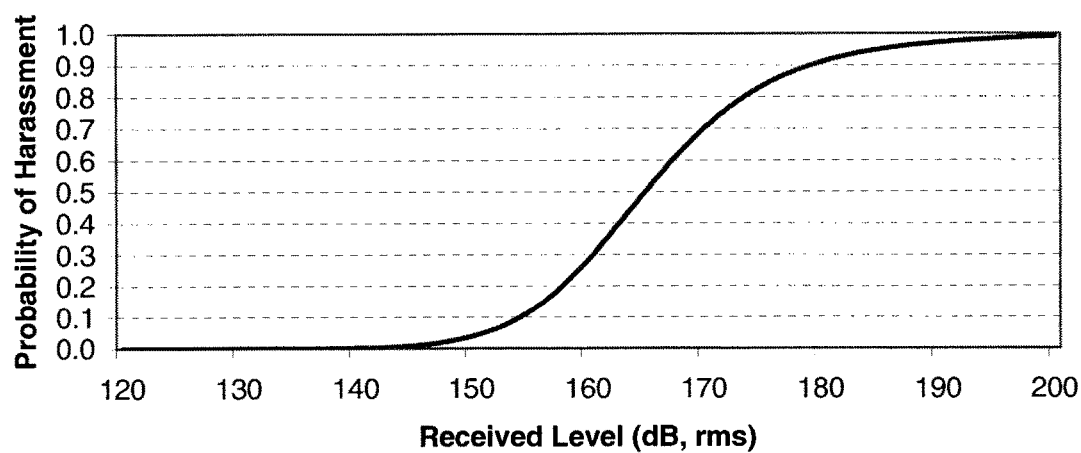
Risk Function for Mysticetes

Figure 3b. Risk function for mysticetes. $B=120$ dB, $K=45$ dB, $A=8$.

Basic Application of the Risk Function—The risk function is used to estimate the percentage of an exposed population that is likely to exhibit behaviors that would qualify as harassment (as that term is defined by the MMPA applicable to military readiness activities, such as the Navy's testing and training with MFA sonar) at a given received level of sound. For example, at 165 dB SPL (dB re: 1μPa rms), the risk (or probability) of harassment is defined according to this function as 50 percent, and Navy/NMFS applies that by estimating that 50 percent of the individuals exposed at that received level are likely to respond by exhibiting behavior that NMFS would classify as behavioral harassment. The risk function is not applied to individual animals, only to exposed populations.

The data primarily used to produce the risk function (the K parameter) were compiled from four species that had been exposed to sound sources in a variety of different circumstances. As a result, the risk function represents a general relationship between acoustic exposures and behavioral responses that is then applied to specific circumstances. That is, the risk function represents a relationship that is deemed to be generally true, based on the limited, best-available science, but may not be true in specific circumstances. In particular, the risk function, as currently derived, treats the received level as the only variable that is relevant to a marine mammal's behavioral response. However, we know that many other variables—the marine mammal's gender, age, and prior experience; the activity it is engaged in during an exposure event, its distance from a sound source, the number of sound sources, and whether the sound sources

are approaching or moving away from the animal—can be critically important in determining whether and how a marine mammal will respond to a sound source (Southall *et al.*, 2007). The data that are currently available do not allow for incorporation of these other variables in the current risk functions; however, the risk function represents the best use of the data that are available.

As more specific and applicable data become available for MFAS/HFAS sources, NMFS can use these data to modify the outputs generated by the risk function to make them more realistic. Ultimately, data may exist to justify the use of additional, alternate, or multi-variate functions. For example, as mentioned previously, the distance from the sound source and whether it is perceived as approaching or moving away can affect the way an animal responds to a sound (Wartzok *et al.*, 2003). In the AFAST example, animals exposed to received levels between 120 and 130 dB may be more than 65 nautical miles (131,651 yards (120381 m)) from a sound source; those distances could influence whether those animals perceive the sound source as a potential threat, and their behavioral responses to that threat. Though there are data showing marine mammal responses to sound sources at that received level, NMFS does not currently have any data that describe the response of marine mammals to sounds at that distance, much less data that compare responses to similar sound levels at varying distances (much less for MFAS/HFAS). However, if data were to become available, NMFS would re-evaluate the risk function and incorporate any additional variables into the “take” estimates.

Harbor Porpoise Behavioral Harassment Criteria

The information currently available regarding these inshore species that inhabit shallow and coastal waters suggests a very low threshold level of response for both captive and wild animals. Threshold levels at which both captive (*e.g.* Kastelein *et al.*, 2000; Kastelein *et al.*, 2005; Kastelein *et al.*, 2006, Kastelein *et al.*, 2008) and wild harbor porpoises (*e.g.* Johnston, 2002) responded to sound (*e.g.* acoustic harassment devices (ADHs), acoustic deterrent devices (ADDs), or other non-pulsed sound sources) is very low (*e.g.* ~120 dB SPL), although the biological significance of the disturbance is uncertain. Therefore, a step function threshold of 120 dB SPL was used to estimate take of harbor porpoises instead of the risk functions used for other species (*i.e.*, we assume for the purpose of estimating take that all harbor porpoises exposed to 120 dB or higher MFAS/HFAS will be taken by Level B behavioral harassment).

Explosive Detonation Criteria (for IEER)

The criteria for mortality, Level A Harassment, and Level B Harassment resulting from explosive detonations were initially developed for the Navy's Sea Wolf and Churchill ship-shock trials and have not changed since other MMPA authorizations issued for explosive detonations. The criteria, which are applied to cetaceans and pinnipeds, are summarized in Table 10. Additional information regarding the derivation of these criteria is available in the Navy's FEIS for the AFAST and in the Navy's CHURCHILL FEIS (U.S. Department of the Navy, 2001c).

Criterion	Criterion Definition	Threshold
Mortality	onset of severe lung injury (1% probability of mortality)	31 psi-ms (positive impulse)
Level A Harassment (Injury)	Slight lung injury; or	13 psi-ms (positive impulse)
	50% of animals exposed would experience ear drum rupture; and 30% exposed sustain PTS	205 dB re 1 microPa ² -s (full spectrum energy)
Level B Harassment	TTS (dual criteria); or	23 psi (peak pressure) (explosives < 2,000 lbs.); or
		182 dB re 1 microPa ² -s (peak 1/3 octave band)

Table 10. Summary of Criteria for Explosive Detonations applicable to IEER

Although NMFS does consider behavioral harassment that could potentially result from successive explosive detonations, such as those that would occur in gunnery exercises, because of the spatio-temporal separation (10–12 charges are detonated over the course of 2–8 hours in an area of up to 60 by 60 nm) of the charges detonated in an IEER exercises, behavioral harassment is considered unlikely. Also, the pressure wave (23 psi) explosive TTS threshold radius is very close to the size of the acoustic energy threshold for sub-TTS harassment—so many of the takes that might have been counted as behavioral harassments would already have been captured as TTS takes anyway. Additionally, a 1,000-yd exclusion zone is utilized for the IEER exercises and the distance from the source at which animals would be exposed to the behavioral harassment threshold is less than 1,000 yds (approximately 500 yd).

Estimates of Potential Marine Mammal Exposures and Takes

Information regarding the models used, the assumptions used in the models, and the process of estimating take is available in the Navy's EIS/OEIS for AFAST. Estimating the take that will result from the proposed activities entails the following general steps:

(1) In order to quantify the types of take described in previous sections that are predicted to result from the Navy's specified activities, the Navy first uses a sound propagation model that predicts the volume of water that will be ensonified to a range of levels of pressure and energy (of the metrics used in the criteria) from MFAS/HFAS and explosive detonations based on several

important pieces of information, including:

- Characteristics of the sound sources
 - Sonar source characteristics include: Source level (with horizontal and vertical directivity corrections), source depth, center frequency, source directivity (horizontal/vertical beam width and horizontal/vertical steer direction), and ping spacing
 - Explosive source characteristics include: The weight of an explosive, the type of explosive, and the detonation depth
- Transmission loss (in 36 representative environmental provinces) based on: Seasonal sound speed profiles; seabed geoacoustics; wind speed; and acoustics

(2) The accumulated energy and maximum received sound pressure level within the waters in which the sonar is operating is sampled over a two dimensional grid. The zone of influence (ZOI) for a given threshold is estimated by summing the areas represented by each grid point for which the threshold is exceeded. For behavioral response, the percentage of animals likely to respond corresponding to the maximum received level is found, and the area of the grid point is multiplied by that percentage to find the adjusted area. Those adjusted areas are summed across all grid points to find the overall ZOI for a particular source.

(3) The densities of each marine mammal species, which are specific to certain geographic areas and seasons if data are available, are applied to the summed zones of influence for a particular training event to determine how many times individuals of each species are exposed to levels that exceed

the applicable criteria for injury or harassment.

(4) Next, the criteria discussed in the previous section are applied to the estimated exposures to predict the number of exposures that exceed the criteria, i.e., the number of takes by Level B Harassment, Level A Harassment, and mortality.

(5) Last, NMFS and the Navy consider the mitigation measures and model-calculated estimates may be adjusted based a post-model assessment. For example, in some cases the raw modeled numbers of exposures to levels predicted to result in Level A Harassment from exposure to sonar might indicate that 1 fin whale would be exposed to levels of sonar anticipated to result in PTS—however, a fin whale would need to be within approximately 10 m of the source vessel in order to be exposed to these levels. Because of the mitigation measures (watchstanders and shutdown zone), size of fin whales, and nature of fin whale behavior, it is highly unlikely that a fin whale would be exposed to those levels, and therefore the Navy would not request authorization for Level A Harassment of 1 fin whale. Table 11 contains the Navy's estimated take estimates. The "takes" reported in the take table and proposed to be authorized are based on estimates of marine mammal exposures to levels above those indicated in the criteria. Every separate take does not necessarily represent a different individual because some individual marine mammals may be exposed more than once, either within one day and one exercise, or on different days from different exercise types.

(6) Last, the Navy's specified activities have been described based on best estimates of the number of MFAS/HFAS

hours that the Navy will conduct. The exact number of hours may vary from year to year, but will not exceed the 5-year total indicated in Table 1 (by multiplying the yearly estimate by 5) by more than 10-percent. NMFS estimates that a 10-percent increase in sonar hours would result in approximately a 10-percent increase in the number of takes, and we have considered this possibility and the effect of this additional sonar use in our analysis.

NMFS notes here that the Navy revised its request for incidental harassment (since the application was initially submitted and posted on NMFS' Web site) based on corrections to

the acoustic analysis that resulted in changes in the exposure estimates. During intensive quality assurance of the acoustic analysis calculations, the following errors were corrected:

- Acoustic footprints for several of the sound sources were not summing correctly, leading to an underestimate of exposures.
- Nearshore densities of several species of marine mammals in the northeast were improperly used to estimate offshore densities resulting in an overestimate of exposures.
- Modeling of maintenance of the AN/BQQ-5/10 (submarine sonar) improperly summed footprints that

were modeled for operations, leading to a significant overestimate of the number of marine mammal exposures. During operations submarines are predicted to ping infrequently, therefore each ping is added independently with no overlap between ping footprints. During maintenance the BQQ-5/10 is predicted to ping frequently, which leads to significant overlap of the ping footprints.

The analysis contained in this proposed rule incorporates the revised take estimates and, thereby, the above-mentioned corrections.

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	NAVY MODELED EXPOSURE ESTIMATES																	TOTAL			NMFS' Proposed Annual Take Authorization		
	Atlantic Ocean, Offshore of the Southeastern United States							Northeast			Gulf of Mexico			TOTAL									
	YACAPES OPAREA		Cherry Pt OPAREA		Jaw/CHASN OPAR			Northeast OPAREA		GOMEX		TOTAL		TOTAL									
Species	PTS	TTS	Dose-Function	PTS	TTS	Dose-Function	PTS	TTS	Dose-Function	PTS	TTS	Dose-Function	PTS	TTS	Dose-Function	Mortality	Level A Harassment	Level B Harassment					
North Atlantic right whale*	0	1	45	0	0	30	0	3	363	0	0	224	X	X	X	0	4	662	0	0	666 (0)		
Humpback whale*	0	4	402	0	6	685	0	19	2370	0	0	701	0	1	10	0	30	4168	0	0	4198 (0)		
Minke whale	0	0	21	0	0	36	0	1	129	0	0	227	X	X	X	0	1	413	0	0	414 (1)		
Bryde's whale	X	X	X	X	X	X	0	1	10	X	X	X	0	0	23	0	1	33	0	0	34 (0)		
Sei whale*	0	1	10	0	1	10	X	X	X	0	0	1032	X	X	X	0	2	1052	0	0	1054 (0)		
Fin whale*	0	1	68	0	1	10	X	X	X	0	0	801	X	X	X	0	2	879	0	0	881 (0)		
Blue whale*	X	X	X	X	X	X	0	4	317	0	1	4403	0	5	337	0	63	9678	0	0	801 (0)		
Sperm whale*	0	36	3084	0	4	317	0	17	1517	0	1	4403	0	5	330	0	44	4340	0	0	9741 (0-32)		
Kogia spp.	0	5	408	0	8	703	0	26	2476	0	0	423	0	5	330	0	44	4340	0	0	4384 (22 to 44)		
Beaked whale	0	8	486	0	5	323	0	19	1318	0	0	351	0	2	153	0	34	2631	10 over 5 yrs	0	2665 (17 to 34)		
Rough-toothed dolphin	0	2	194	0	4	334	0	13	1177	X	X	X	0	10	971	0	29	2676	0	0	2705 (0-15)		
Bottlenose dolphin	3	405	32627	7	738	66299	35	4722	461520	0	2	16102	2	210	22905	47	6077	599453	0	0	605530 (0-3039)		
Pantropical spotted dolphin	1	108	8992	2	183	15484	5	580	54546	0	1	9243	5	683	48374	13	1555	136839	0	0	138394 (0-778)		
Atlantic spotted dolphin	10	1287	97820	3	551	41880	11	2176	202703	0	4	15135	3	124	14390	27	4142	371928	0	0	376070 (0-2071)		
Spinner dolphin	0	1	10	0	1	10	0	1	10	0	1	10	0	2	289	20616	2	311	20836	0	0	21147 (0-156)	
Clymene dolphin	0	51	4296	1	87	7397	2	277	26060	0	0	0	1	106	7549	4	521	45302	0	0	45823 (0-261)		
Striped dolphin	8	839	75343	0	1	61	X	X	X	2	10	94140	0	58	4131	10	908	173675	0	0	174583 (0-454)		
Common dolphin	4	850	47477	0	1	111	X	X	X	1	10	47960	X	X	X	5	861	95548	0	0	96409 (0-431)		
Fraser's dolphin	X	X	X	X	X	X	X	X	X	X	X	X	0	4	316	0	4	316	0	0	320 (0-2)		
Risso's dolphin	1	92	7270	1	100	8635	5	585	57157	0	2	18716	0	20	1424	7	799	93202	0	0	94001 (0-400)		
Atlantic white-sided dolphin	0	1	10	0	1	10	X	X	X	0	1	20635	X	X	X	0	2	20645	0	0	20647 (0-1)		
White-beaked dolphin	X	X	X	X	X	X	X	X	X	0	2	26421	X	X	X	0	2	26421	0	0	26243 (1)		
Melon-headed whale	X	X	X	X	X	X	0	1	10	0	1	10	0	21	1501	0	22	1511	0	0	1533 (0)		
Pygmy killer whale	0	1	10	0	1	10	0	1	10	0	1	10	0	3	216	0	7	256	0	0	263 (0)		
False killer whale	0	1	10	0	1	10	0	1	10	0	1	10	0	6	452	0	10	492	0	0	502 (0)		
Killer whale	0	1	10	0	1	10	0	1	10	0	1	10	0	1	58	0	41	458	0	0	499 (0)		
Pilot whales	1	159	13208	1	134	12241	7	796	77065	0	12	22597	0	15	1039	9	1116	126150	0	0	127266 (0)		
Harbor porpoise	0	1	1000	0	1	100	X	X	X	0	0	152370	X	X	X	0	11	153470	0	0	153481 (0)		
Gray Seal	X	X	X	X	X	X	X	X	X	0	31	7828	X	X	X	0	31	7828	0	0	7859 (16-31)		
Harbor Seal	X	X	X	X	X	X	X	X	X	0	29	12630	X	X	X	0	29	12630	0	0	12659 (15-29)		
Hooded Seal	X	X	X	X	X	X	X	X	X	0	62	15656	X	X	X	0	62	15656	0	0	15718 (31-62)		
Harp Seal	X	X	X	X	X	X	X	X	X	0	43	10959	X	X	X	0	43	10959	0	0	11002 (22-43)		

Table 1. Navy's estimated exposures to indicated criteria and NMFS' proposed take authorization. Though exposures are predicted by the model, NMFS does not anticipate any injury/PTS to occur because of the mitigation measures (as related to certain characteristics of animals, such as size, gregariousness, or group size) and likely avoidance behavior of marine mammals. As discussed in the Estimated Take of Marine Mammals Section, NMFS also anticipates fewer takes by PTS will actually occur than were modeled.

Anticipated TTS occurrences are indicated in parentheses in the last column (and are already counted within the broad Level B harassment number that NMFS proposes to authorize)

X - Species is not present or extremely rare in this region, therefore Navy is not requesting takes of this species in this region.

† - Species may be present in small numbers but insufficient data exists to generate density and therefore exposures could not be modeled. In this case the Navy estimated a number of takes to request based on qualitative assessment.

‡ - In the Atlantic pilot whales are often grouped in sighting records due to difficulty of distinguishing between the species. Therefore, in the Atlantic long-finned and short-finned pilot whale takes are combined. There are no confirmed sightings of long-finned pilot whales in the Gulf of Mexico, therefore take numbers are only for short finned pilot whales.

Blue whale: Used fin whale densities to predict exposures in the Northeast.

White-beaked dolphin: Used fall bottlenose estimates in the Northeast as a year-round white-beaked dolphin estimate.

Hooded seal: Used 0.2x gray seal estimate based on ratio of hooded seal vs. gray seal stranding records throughout their range.

Harp seal: Used 1.4x gray seal estimate based on ratio of harp seal vs. gray seal stranding records throughout their range.

Mortality

Evidence from five beaked whale strandings, all of which have taken place outside the AFAST Study Area, and have occurred over approximately a decade, suggests that the exposure of beaked whales to MFAS in the presence of certain conditions (e.g., multiple units using tactical sonar, steep bathymetry, constricted channels, strong surface ducts, etc.) may result in strandings, potentially leading to mortality. Although these physical factors believed to contribute to the likelihood of beaked whale strandings are not present, in their aggregate, in the AFAST Study Area, scientific uncertainty exists regarding what other factors, or combination of factors, may contribute to beaked whale strandings. Accordingly, to allow for scientific uncertainty regarding contributing causes of beaked whale strandings and the exact behavioral or physiological mechanisms that can lead to the ultimate physical effects (stranding and/or death), the Navy has requested authorization for take, by serious injury or mortality, of 10 beaked whales over the course of the 5-yr regulations. Neither NMFS nor the Navy anticipates that marine mammal strandings or mortality will result from the operation of mid-frequency sonar during Navy exercises within the AFAST Study Area.

Effects on Marine Mammal Habitat

Unless the source is stationary and/or continuous over a long duration in one area, the effects of the introduction of sound into the environment are generally considered to have a less severe impact on marine mammal habitat than the physical alteration of the habitat. AFAST activities primarily include the operation of active sonar sources at various locations and times along the Atlantic and Gulf of Mexico Coasts throughout the year, although IEER exercises (169 2–8 hour exercises per year) may also include the detonation of several explosive sonobuoys, which utilize a 4.1-lb charge. In addition to the physical alteration of habitat, NMFS considers the effects of the action on prey species when analyzing the effects of the action on marine mammal habitat. Based on the information below and the supporting information included in the Navy's DEIS, NMFS has preliminarily determined that the AFAST activities will not have significant or long term impacts on marine mammal habitat. However, the determination of whether an activity will adversely modify designated critical habitat is reached through a separate process, which

would be completed before an MMPA authorization would be issued.

Right Whale Critical Habitat

Please see the Negligible Impact Determination Section for a discussion of the nature and extent of effects proposed to occur in designated right whale critical habitat. The NMFS Endangered Species Division will make a determination pursuant to the ESA regarding whether the Navy's actions are likely to result in the destruction or adverse modification of right whale critical habitat prior to the issuance (if appropriate) of an LOA.

Effects on Fish

Mid-Frequency and High-Frequency Active Sonar

The Navy's DEIS (Section 4.7) includes a detailed discussion of the effects of sonar on marine fish. In summary, studies have indicated that acoustic communication and orientation of fish may be restricted by anthropogenic sound in their environment. However, most marine fish species are not expected to be able to detect sounds in the mid-frequency range of the operational sonars used in the Proposed Action, and therefore, the sound sources are not likely to mask key environmental sounds. The few fish species that have been shown to be able to detect mid-frequencies do not have their best sensitivities in the range of the operational sonars. Additionally, vocal marine fish largely communicate below the range of mid-frequency levels used in the Proposed Action.

Though mortality has been shown to occur in one species, a hearing specialist, as a result of exposure to non-impulsive sources, the available evidence does not suggest that exposures such as those anticipated from MFAS/HFAS would result in significant fish mortality on a population level. The mortality that was observed was considered insignificant in light of natural daily mortality rates. Experiments have shown that exposure to loud sound can result in significant threshold shifts in certain fish that are classified as hearing specialists (but not those classified as hearing generalists). Threshold shifts are temporary, and considering the best available data, no data exist that demonstrate any long-term negative effects on marine fish from underwater sound associated with sonar activities. Further, while fish may respond behaviorally to mid-frequency sources, this behavioral modification is only expected to be brief and not biologically significant. Based on the evaluation presented in the Navy's DEIS

and summarized here, the likelihood of significant effects to individual fish from active sonar is low.

Explosive Detonations (IEER)

There are currently no well-established thresholds for estimating effects to fish from explosives other than mortality models. Fish that are located in the water column, in proximity to the source of detonation could be injured, killed, or disturbed by the impulsive sound and possibly temporarily leave the area. Continental Shelf Inc. (2004) summarized a few studies conducted to determine effects associated with removal of offshore structures (e.g., oil rigs) in the Gulf of Mexico. Their findings revealed that at very close range, underwater explosions are lethal to most fish species regardless of size, shape, or internal anatomy. For most situations, cause of death in fishes has been massive organ and tissue damage and internal bleeding. At longer range, species with gas-filled swimbladders (e.g., snapper, cod, and striped bass) are more susceptible than those without swimbladders (e.g., flounders, eels). Studies also suggest that larger fishes are generally less susceptible to death or injury than small fishes. Moreover, elongated forms that are round in cross section are less at risk than deep-bodied forms; and orientation of fish relative to the shock wave may affect the extent of injury. Open water pelagic fish (e.g., mackerel) also seem to be less affected than reef fishes. The results of most studies are dependent upon specific biological, environmental, explosive, and data recording factors. The Navy's explosive sonobuoys that are proposed for use in IEER exercises are relatively small (4.1 lb) compared to charges used in many other activities, both military and construction-based.

The huge variations in the fish population, including numbers, species, sizes, and orientation and range from the detonation point, make it very difficult to accurately predict mortalities at any specific site of detonation. 872 explosive sonobuoys, deployed in 169 2–8 hour exercises spread approximately evenly across all OPAREAs, are proposed to be detonated per year in the AFAST Study Area. Most fish species experience large numbers of natural mortalities, especially during early life-stages, and any small level of mortality caused by the AFAST activities involving the explosive source sonobuoy (AN/SSQ-110A) will likely be insignificant to the population as a whole.

Analysis and Negligible Impact Determination

Pursuant to NMFS regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be "taken" by the specified activities (i.e., takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a "negligible impact" on the affected species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (for example: pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46 percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17 percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), or any of the other variables mentioned in the first paragraph (if known), as well as the number and nature of estimated Level A takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being equal, the Navy and NMFS anticipate more severe effects

from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

The Navy's specified activities have been described based on best estimates of the number of MFAS/HFAS hours that the Navy will conduct. The exact number of hours (or torpedoes, or pings, whatever unit the source is estimated in) may vary from year to year, but will not exceed the 5-year total indicated in Table 1 (by multiplying the yearly estimate by 5) by more than 10 percent. NMFS estimates that a 10 percent increase in sonar hours (torpedoes, pings, etc.) would result in approximately a 10 percent increase in the number of takes, and we have considered this possibility and the effect of the additional sonar use in our analysis.

Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that Navy training exercises utilizing MFAS/HFAS and underwater detonations (IEER) will have a negligible impact on the marine mammal species and stocks present in the AFAST.

Behavioral Harassment

As discussed in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and illustrated in the conceptual framework, marine mammals can respond to MFAS/HFAS in many different ways, a subset of which qualifies as harassment (see Behavioral Harassment Section). One thing that the take estimates do not take into account is the fact that most marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance

results in a missed opportunity to feed, interruption of reproductive behaviors, etc.) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. For MFAS/HFAS, the Navy provided information (Table 12) estimating what percentage of the total takes that will occur within the 10-dB bins (without considering mitigation or avoidance) that are within the received levels considered in the risk continuum and for TTS and PTS. This table applies specifically to 53C sonar (the most powerful source), with less powerful sources the percentages would increase slightly in the lower received levels and correspondingly decrease in the higher received levels. As mentioned above, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to adversely affect the health of the animals.

As mentioned previously, the Navy developed planning awareness areas (PAAs) based on important bathymetric and consistent oceanographic features (see Mitigation). The incorporation of the Navy's proposed PAAs into their planning process along with the plan not to conduct more than 4 major exercises within these areas should ultimately result in a reduction in the number of marine mammals exposed to MFAS/HFAS (because these PAAs are anticipated to have higher densities of animals), a reduction in the number of animals exposed while engaged in feeding behaviors (because these areas are particularly productive), and an increased awareness of their potential presence when conducting activities in those important areas. Additionally, the Navy's plan to minimize both the helicopter dipping and object detection activities within the NARW critical habitat during the time when the most calves and mothers are present should result in the minimization of exposure of cow/calf pairs to MFAS/HFAS.

Received Level (SPL)	Percent of Total Harassment Takes Estimated to Occur at Indicated Level
Below 140 dB	<1%
140 < Level < 150 dB	2%
150 < Level < 160 dB	20%
160 < Level < 170 dB	40%
170 < Level < 180 dB	24%
180 < Level < 190 dB	9%
Above 190 dB	2%
TTS (195 dB EFDL)	2%
PTS (215 dB EFDL)	<1%

Table 12. Approximate percent of estimated takes that occur in the indicated 10-dB bins for AN/SQS-53 (the most powerful source). For smaller sources, a higher % of the takes occur at lower levels, and a lower % at higher levels.

Because the Navy has only been monitoring specifically to discern the effects of MFAS/HFAS on marine mammals since approximately 2006, and because of the overall datagap regarding the effects MFAS/HFAS on marine mammals, not a lot is known regarding, specifically, how marine mammals in the AFAST Study Area will respond to MFAS/HFAS. For the four MTEs for which NMFS has received a monitoring report, no instances of obvious behavioral disturbance were observed by the Navy watchstanders in the 700+ hours of effort in which 79 sightings of marine mammals were made (10 during active sonar operation). One cannot conclude from these results that marine mammals were not harassed from MFAS/HFAS, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* sp.) and some of the non-biologist watchstanders might not be well-qualified to characterize behaviors. However, one can say that the animals that were observed did not respond in any of the obviously more severe ways, such as panic, aggression, or anti-predator response.

In addition to the monitoring that will be required pursuant to this LOA, which is specifically designed to help us better understand how marine mammals respond to sound, the Navy and NMFS have developed, funded, and begun conducting a controlled exposure experiment with beaked whales in the Bahamas. Separately, the Navy plans to conduct an opportunistic tagging experiment with beaked whales in the

area of the 2008 Rim of the Pacific training exercises in the HRC.

Diel Cycle

As noted previously, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

In the previous section, we discussed the fact that potential behavioral responses to MFAS/HFAS that fall into the category of harassment could range in severity. By definition, the takes by behavioral harassment involve the disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hours or be repeated in subsequent days. For hull-mounted sonar (the highest power source), approximately 60% of the hours of source use are comprised of Independent Unit Level Training or maintenance activities that occur in

events of 6 hours or less. Coordinated Unit Level Training or Strike Group Training events typically last more than one day, however, sonar use is not continuous and the exercises take place over very large areas, between 30 nm x 30 nm areas and 180 nm x 180 nm areas (900–32,400 nm²). Additionally, during ASW exercises (times of continuous sonar use) vessels with hull-mounted sonar are typically moving at speeds of 10–12 knots. When this is combined with the fact that the majority of the cetaceans in the AFAST study area would not likely remain in the same area for successive days (especially an area in waters beyond 22 km from shore or greater than 600 ft deep, which is where the majority of the exercises take place), it is unlikely that animals would be exposed to MFAS/HFAS at levels or for a duration likely to result in a substantive response that would then be carried on for more than one day or on successive days.

TTS

NMFS and the Navy have estimated that some individuals of some species of marine mammals may sustain some level of TTS from MFAS/HFAS. As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths. Table 11 indicates the estimated number of animals that might sustain TTS from exposure to MFAS/HFAS. The TTS sustained by an animal is primarily classified by three characteristics:

- Frequency—Available data (of mid-frequency hearing specialists exposed to mid to high frequency sounds—Southall

et al., 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at $\frac{1}{2}$ octave above). The two hull-mounted MFAS sources, the DICASS sonobuoys, and the helicopter dipping sonar have center frequencies between 3.5 and 8 kHz and the other unidentified MF sources are, by definition, less than 10 kHz, which suggests that TTS induced by any of these MF sources would be in a frequency band somewhere between approximately 2 and 20 kHz. There are far fewer hours of HF source use and the sounds would attenuate more quickly, but if an animal were to incur TTS from these sources, it would cover a higher frequency range (don't know exactly because center frequencies of HF

sources are classified). TTS from explosives would be broadband. Tables 13a and b summarize the vocalization data for each species.

- Degree of the shift (i.e., how many dB is the sensitivity of the hearing reduced by)—generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS (> 6 dB) is 195 dB (SEL), which might be received at distances of up to 275–500 m from the most powerful MFAS source, the AN/SQS-53 (the maximum ranges to TTS from other sources would be less). An animal would have to approach closer to the source or remain in the vicinity

of the sound source appreciably longer to increase the received SEL, which would be difficult considering the watchstanders and the nominal speed of a sonar vessel (10–12 knots). Of all TTS studies, some using exposures of almost an hour in duration or up to 217 SEL, most of the TTS induced was 15 dB or less, though Finneran *et al.* (2007) induced 43 dB of TTS with a 64-sec exposure to a 20 kHz source (MFAS emits a 1-s ping 2 times/minute).

- Duration of TTS (Recovery time)—see above. Of all TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL, almost all recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.* (2007)), recovery took 4 days.

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	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 μ Pa)	Duration / Other
North Atlantic Right Whale	call	< 0.4			
	moans	0.02 - 15*	< 0.2	137 - 192*	0.01 to multiple s
Humpback Whale	songs	< 0.4			
	social	0.03 - 8	0.1 - 4	144-186	
	shricks	0.05 - 10	< 3		
	horn blasts		0.75 - 1.8	179-181	
	moans		0.41 - 0.42	181-185	
	grunts	0.02 - 1.8	0.035 - 0.36	175	
	pulse trains	0.025 - 1.9		190	
	slap	0.025 - 1.25	0.025 - 0.080	179-181	
	feeding calls	0.03 - 1.2		183-192	
	simple vocalization	0.02 - 2	0.5	162 - 192	< 1 s
Minke Whale	sweeps, moans	0.14 - 4	0.22 (mean)		
	down sweeps	0.06 - 0.14		151-175	
	moans, grunts	0.06 - 0.13		165	
	ratchet	0.06 - 0.14	0.06 - 0.14	151-175	
	thump trains	0.85 - 6	0.85		
	speed up pulse train	0.1 - 2	0.1 - 0.2		
	slow down pulse train	0.2 - 0.4			40 to 60 ms
	Star Wars vocalization	0.25 - 0.35			70 to 140 ms
	Breeding Boings (pulse then amp-mod. call)	0.05 - 9.4		150-165	
		1.3 - 1.4			2.5 s with slight frequency modulation
Bryde's Whale	moans	0.07 - 0.245	0.124 - 0.132	152-174	0.25 to several s
	pulsed moans	0.1 - 0.93	0.165 - 0.9		
	discrete pulses	0.7 - 0.95	0.7 - 0.9		
Sei whale	FM sweeps	1.5 - 3.5			10 to 20 sweeps lasting 4 ms
	growls, whooshes, tonal calls	0.433		156	.45 s
Fin whale	moans	0.016 - 0.75	0.02	160-190	
	pulses	0.04 - 0.075 / 0.018 - 0.025	- / 0.02		
	ragged pulse	< 0.03			
	rumbles	- / 0.01 - 0.03	< 0.03 / -		
	moans, downsweeps	0.014 - 0.118	0.02	160-186	
	constant call	0.02 - 0.04			
	moans, tones, upsweeps	0.03 - 0.75		155-165	
	whistles, chirps	1.5 - 5	1.5 - 2.5		
	clicks	16 - 28			
	vocal sequence, ? only	0.015 - 0.03			
Blue Whale	FM sweeps	0.018 - .23		184 - 186	1 s
	moans, long duration songs	0.012 - .4	.012 - .025	188	up to 36 s, repeated every 1 - 2 min
	FM sweeps	0.858 $\pm$ 0.148			< 5 s

Table 13a. Summary of mysticete vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's AFAST and HRC EISs - see those documents for specific information.

	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 μ Pa)	Duration / Other
Sperm Whale	clicks	0.1 - 30	2 - 4, 10 - 16	160 - 180	< 30 ms
	short clicks			236	< 1 μ s, highly directional
	trumpets			172	
Sperm Whale, Neonate	clicks		0.5	140 - 162	< 2 to 12 ms, low directionality
Pygmy sperm whale	clicks	60 - 200	120 - 130		
	narrowband pulses		129	175	119 μ s, interclk intervals 40-70 ms
	echolocation clicks	60 - 200	120 - 130		
Dwarf sperm whale	clicks	13-33			0.3 - 0.5 s
Beaked Whales					
Blainville's beaked	whistles, chirps	< 1 - 6			
	whistles	2.6 - 10.7			
	echolocation clicks	20 - 40		200 - 220	< 175 μ s, depths > 200 m
Cuvier's beaked	echolocation clicks	20 - 40		214	< 200 to 250 μ s, depths > 200 m
	whistles	8 - 12			upsweep lasts 1 s
	pulses	13 - 17			15 to 44 s
Rough-toothed Dolphin	whistles	0.3 - 24			< 1 s
	whistles		4 - 7		
	clicks	0.1 - 200			< 250 μ sec
	clicks		5 - 32		
Bottlenose Dolphin	whistles	0.8 - 24	3.5 - 14.5	125-173	
	whistle	4 - 20			
	click	0.2 - 150	30 - 60		
	click		110 - 130	218-228	
	bark	0.2 - 16			
Pantropical Spotted Dolphin	whistles	3.1 - 21.4	6.7 - 17.8		
	pulse	up to 150			
	clicks	40 - 140		up to 220	
Atlantic Spotted Dolphin	whistles		7.1 - 14.5		
	burst pulses		40		
	squawks, barks growls	0.1 - 8			
	echolocation clicks	40 - 130		210	
	squawks	0.2 - 12			
	barks, ? only	0.2 - 20			
	synchronized squawks, ? only in a group	0.1 - 15			
Spinner Dolphin	pulse	1 - 160	5 - 60		
	whistles	1 - 20	8 - 12		
	echolocation clicks		up to 65		
	click	1 - 160	60	195 - 222	
Clymene Dolphin	whistles	6.3 - 19.2			
Striped dolphin	whistles	1 - 22.5	6.8 - 16.9	109-125	
	whistles	6 - 24	8 - 125		
	pulse bursts		5 - 60	108-115	

Table 13b. Summary of odontocete vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's AFAST and HRC EISs - see those documents for specific information.

	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 μ Pa)	Duration / Other
Sperm Whale	clicks	0.1 - 30	2 - 4, 10 - 16	160 - 180	< 30 ms
	short clicks			236	< 1 μ s, highly directional
	trumpets			172	
Sperm Whale, Neonate	clicks		0.5	140 - 162	< 2 to 12 ms, low directionality
Pygmy sperm whale	clicks	60 - 200	120 - 130		
	narrowband pulses		129	175	119 μ s, interclk intervals 40-70 ms
	echolocation clicks	60 - 200	120 - 130		
Dwarf sperm whale	clicks	13-33			0.3 - 0.5 s
Beaked Whales					
Blainville's beaked	whistles, chirps	< 1 - 6			
	whistles	2.6 - 10.7			
	echolocation clicks	20 - 40		200 - 220	< 175 μ s, depths > 200 m
Cuvier's beaked	echolocation clicks	20 - 40		214	< 200 to 250 μ s, depths > 200 m
	whistles	8 - 12			upsweep lasts 1 s
	pulses	13 - 17			15 to 44 s
Rough-toothed Dolphin	whistles	0.3 - 24			< 1 s
	whistles		4 - 7		
	clicks	0.1 - 200			< 250 μ sec
	clicks		5 - 32		
Bottlenose Dolphin	whistles	0.8 - 24	3.5 - 14.5	125-173	
	whistle	4 - 20			
	click	0.2 - 150	30 - 60		
	click		110 - 130	218-228	
	bark	0.2 - 16			
Pantropical Spotted Dolphin	whistles	3.1 - 21.4	6.7 - 17.8		
	pulse	up to 150			
	clicks	40 - 140		up to 220	
Atlantic Spotted Dolphin	whistles		7.1 - 14.5		
	burst pulses		40		
	squawks, barks growls	0.1 - 8			
	echolocation clicks	40 - 130		210	
	squawks	0.2 - 12			
	barks, ? only	0.2 - 20			
	synchronized squawks, ? only in a group	0.1 - 15			
Spinner Dolphin	pulse	1 - 160	5 - 60		
	whistles	1 - 20	8 - 12		
	echolocation clicks		up to 65		
	click	1 - 160	60	195 - 222	
Clymene Dolphin	whistles	6.3 - 19.2			
Striped dolphin	whistles	1 - 22.5	6.8 - 16.9	109-125	
	whistles	6 - 24	8 - 125		
	pulse bursts		5 - 60	108-115	

Table 13b. Summary of odontocete vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's AFAST and HRC EISs - see those documents for specific information.

Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during MFAS/HFAS training exercises, it is unlikely that marine mammals would sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and the majority would be far less severe). Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery were impeded. Additionally (see Tables 13a and 13b), though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would more likely be sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations. It is worth noting that TTS from MFAS could potentially result in reduced sensitivity to the vocalizations of killer whales (potential predators). If impaired, marine mammals would typically be aware of their impairment and implement behaviors to compensate for it (see Communication Impairment Section), though these compensations may incur energetic costs.

Acoustic Masking or Communication Impairment

Table 13 is also informative regarding the nature of the masking or communication impairment that could potentially occur from MFAS (again, center frequencies are 3.5 and 7.5 kHz for the two types of hull-mounted sonar). However, masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which occurs continuously for its duration. Standard MFAS sonar pings last on average one second and occur about once every 24–30 seconds for hull-mounted sources. When hull-mounted sonar is used in the Kingfisher mode, pulse length is shorter, but pings are much closer together (both in time and space, since the vessel goes slower when operating in this mode). For the sources for which we know the pulse length, most are significantly shorter than hull-mounted sonar, on the

order of several microseconds to 10s of microseconds. For hull-mounted sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 24 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from MFAS/HFAS are expected to be minimal. If masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations; however, it would likely not mask the entirety of any particular vocalization or communication series because the pulse length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

PTS, Injury, or Mortality

The Navy's model estimated that the following numbers of individuals of the indicated species would be exposed to levels of MFAS/HFAS associated with the likelihood of resulting in PTS: bottlenose dolphin-47; pantropical spotted dolphin-13; Atlantic spotted dolphin-27; spinner dolphin-2; Clymene dolphin-4; striped dolphin-10; common dolphin-5; Risso's dolphin-7; and pilot whales (long-finned and short-finned)—9. However, these estimates do not take into consideration either the mitigation measures or the likely avoidance behaviors of some of the animals exposed. NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels necessary to induce injury (i.e., approaching to within approximately 10 m (10.9 yd) of the source) by moving away from or at least modifying their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sonar vessel at a close distance, NMFS believes that the mitigation measures (i.e., shutdown/powerdown zones for MFAS/HFAS) further ensure that animals would not be exposed to injurious levels of sound. As discussed previously, the Navy utilizes both aerial (when available) and passive acoustic monitoring (during all ASW exercises) in addition to watchstanders on vessels to detect marine mammals for mitigation implementation and indicated that they are capable of effectively monitoring a 1000-meter (1,093-yd) safety zone at night using night vision goggles, infrared cameras,

and passive acoustic monitoring. When these two points are considered, NMFS does not believe that any marine mammals will incur PTS from exposure to MFAS/HFAS.

The Navy's model estimated that 12 total animals (dolphins) would be exposed to explosive detonations (from IEER) at levels that could result in injury—however, those estimates do not consider mitigation measures. Surveillance during the exercises for which injury was estimated (which includes aerial and passive acoustic detection methods, when available, to ensure clearance) begins half an hour before the exercise and extends to 1000 yds (914 m) from the source. Because of the behavior and visibility of dolphins and the half hour of monitoring that occurs prior to detonation, NMFS does not think that any animals will be exposed to levels of sound or pressure that will result in injury from explosive detonations.

As discussed previously, marine mammals could potentially respond to MFAS at a received level lower than the injury threshold in a manner that indirectly results in the animals stranding. The exact mechanisms of this potential response, behavioral or physiological, are not known. However, based on the number of occurrences where strandings have been definitively associated with military sonar versus the number of hours of sonar that have been conducted, we suggest that the probability is small that this will occur. Additionally, a sonar shutdown protocol for strandings involving live animals milling in the water minimizes the chances that these types of events turn into mortalities.

Though NMFS does not expect it to occur, because of the uncertainty surrounding the mechanisms that link exposure to MFAS to stranding (especially in beaked whales), NMFS is proposing to authorize the injury or mortality of 10 beaked whales over the course of the 5-yr regulations. The Navy's incorporation of the PAAs (some of which include steep bathymetry, certain variations of which have been implicated as contributing factors in marine mammal strandings) into exercise planning and their plan to not conduct major exercises in them could potentially further reduce the likelihood of strandings in association with MFAS operation.

40 Years of Navy Training Exercises Using MFAS/HFAS in the AFAST Study Area

The Navy has been conducting MFAS/HFAS training exercises in the AFAST Study Area for over 40 years,

and the proposed action is the “No Action” alternative in the Navy’s DEIS, i.e., continuing sonar operation in the manner and at the levels used in recent years. Although monitoring specifically in conjunction with training exercises to determine the effects of sonar on marine mammals was not being conducted by the Navy prior to 2006 and the symptoms indicative of potential acoustic trauma were not as well recognized prior to the mid-nineties, people have been collecting stranding data in the AFAST Study Area for approximately 30 years. Though not all dead or injured animals are expected to end up on the shore (some may be eaten or float out to sea), one might expect that if marine mammals were being harmed by sonar with any regularity, more evidence would have been detected over the 40-yr period.

Model Overestimation

When analyzing the results of the acoustic effects modeling to provide an estimate of effects, it is important to understand that there are limitations to the ecological data and to the acoustic model that likely result in an overestimation of the total exposures to marine mammals. NMFS considers these limitations qualitatively when analyzing effects. Specifically, the modeling results are likely overestimates for the following reasons:

- Acoustic footprints for sonar sources near land are not reduced to account for the land mass, where marine mammals would not be exposed to underwater sound.
- The acoustic footprint for each sonar source is modeled independently and, therefore, does not account for overlap it would have with other sonar systems used during the same active sonar activity (especially applicable during coordinated unit level training or strike group training). As a consequence, the calculated acoustic footprint is larger than the actual acoustic footprint, which can be significant when considering the range over which a behavioral effect may occur.
- Acoustic exposures do not reflect implementation of mitigation measures, such as reducing sonar source levels when marine mammals are present.
- In this analysis, the acoustic footprint is assumed to extend from the water surface to the ocean bottom. In reality, the acoustic footprint radiates from the source like a bubble, and a marine animal may be outside this region.
- Marine mammal densities were averaged across specific active sonar activity areas and, therefore, are evenly

distributed without consideration for animal grouping or patchiness.

- The model also does not consider the likely avoidance behaviors of marine mammals in the proximity of an intense sound source.

Species-Specific Analysis

In the discussions below, the “acoustic analysis” refers to the Navy’s analysis, which includes the use of several models and other applicable calculations as described in the Estimates of Potential Marine Mammal Exposure section. The numbers predicted by the “acoustic analysis” are based on a uniform and stationary distribution of marine mammals and do not take into consideration the implementation of mitigation measures or potential avoidance behaviors of marine mammals, and therefore, are likely overestimates of potential exposures to the indicated thresholds (PTS, TTS, behavioral harassments). Consequently, NMFS has factored in the mitigation measures and avoidance to make both quantitative and qualitative adjustments to the take estimates predicted by the Navy’s “acoustic analysis”. The revised take estimates (and proposed take authorization) depict a more realistic scenario than those adopted directly from the Navy’s acoustic analysis.

Although NMFS is not required to identify the number of animals that will be taken specifically by TTS versus behavioral harassment (Level B Harassment takes include both), we have attempted to make more realistic estimates by quantitatively refining the Navy’s TTS estimates by modifying the estimate produced by the acoustic analysis by a specific amount if certain circumstances are present as described below:

For MFAS/HFAS, some animals are likely to avoid the source to some degree (which could decrease the number exposed to TTS levels). Adding to that, in the following circumstances (discussed in more detail in the individual sections below) the indicated multipliers were applied to the TTS estimates predicted by the acoustic analysis:

- When animals are highly visible (such as melon-headed whales, humpback whales), we assume that lookouts will see them in time to cease sonar operation before the animals are exposed to levels associated with TTS, which reach to about 140 m from the sonar source. In this case we estimate 0 animals will incur TTS.
- When animals are deep divers and very cryptic at the surface (such as beaked whales), though some may avoid

the source, we assume that most will not be sighted, and therefore we estimated that 50–100% of the number predicted by the Navy’s acoustic analysis might actually incur TTS.

- When animals are more likely to be visually detected than beaked whales, but less likely than the highly visible species, we estimate that 0–100% of the number of these species (sperm whales, some pinnipeds) predicted by the Navy’s acoustic analysis might actually incur TTS.

- Though dolphins are highly visible, because the mitigation includes a provision to allow bow-riding, not all TTS take of dolphins will necessarily be avoided. Therefore, we estimated that 0–50% of the number of dolphins predicted by the Navy’s acoustic analysis might actually incur TTS.

North Atlantic Right Whale

Acoustic analysis (here and below, “acoustic analysis” refers to the Navy’s process, including primarily the Navy’s model, that results in the take estimates submitted to NMFS—further analysis by NMFS may result in minor adjustments of some of the numbers) indicates that up to 666 exposures of North Atlantic right whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year (additionally, as mentioned above, the number may be an overestimate). Although 4 of the modeled Level B Harassment takes were predicted to be in the form of TTS, NMFS believes it is unlikely that any right whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of North Atlantic right whales out to 914 m (1,000 yd) given their large size (Leatherwood and Reeves, 1982), surface behavior, pronounced blow, and mean group size of approximately three animals. The probability of trackline detection in Beaufort Sea States of 6 or less is 0.90 or 90 percent (Barlow, 2003).

A small number (30: 20 in the SE and 10 in the NE) of the predicted takes of North Atlantic right whales would likely occur within critical habitat for

the North Atlantic Right Whale, which has been designated in three areas: (1) Coastal Florida and Georgia (Sebastian Inlet, Florida, to the Altamaha River, Georgia)—calving grounds; (2) The Great South Channel, east of Cape Cod—feeding and nursery grounds; and (3) Cape Cod and Massachusetts Bays—feeding and nursery grounds.

In the Northeast, the Navy has proposed to largely avoid conducting any training or sonar use in the critical habitat, with one exception. Torpedo exercises (a maximum of 32 MK-48 torpedo runs at 15 minutes each or up to 24 lightweight MK-46 or MK-54 torpedoes) would occur in August–December (when right whales are less likely to be present), as worked out during a previous section 7 consultation. The Navy has included special mitigation measures for TORPEXs conducted in the Northeast.

In the Southeast critical habitat, the Navy has also proposed to largely avoid conducting any training or sonar use in critical habitat, with two exceptions. Maintenance of helicopter dipping sonars occasionally occurs (approximately 30 events at 2–4 hours each) in the portion of the helicopter dipping sonar training area that overlaps with NARW critical habitat. In addition, the Navy would conduct approximately 40 ship object detection/navigation sonar training exercises (1–2 hours each) annually while entering/exiting port (within approximately 1 mile of the shore). This activity could occur year-round (i.e., not all of them would occur during the time that right whales are concentrated in the critical habitat, December–April). All ASW training, except shore-based helicopter dipping sonar, occurs more than 12 nm from shore and usually in greater than 600 ft of water.

Due to the importance of right whale critical habitat for reproductive activities and feeding, takes that occur in those areas would be considered more likely to have more potentially severe effects than takes that occur while whales are just moving through and not involved in reproductive or feeding behaviors. However, the estimated takes in these areas are low (30 total, 20 in the SE, 10 in the NE). Additionally, NMFS and the Navy have included mitigation measures to minimize impacts (both number and severity) both in the northeast and Southeast designated right whale critical habitat (see Mitigation section).

Acoustic analysis indicates that no right whales will be exposed to sound levels likely to result in Level A harassment. Modeling of the explosive sonobuoys predicts no potential for

injury or mortality to right whales. As noted previously, regardless of what the model predicts, NMFS believes that the Navy watchstanders would detect a right whale and implement sonar powerdown or shutdown well before an animal was able to approach within the distance necessary to be injured (approximately 10 m from a hull-mounted sonar).

Fleet Area Control and Surveillance Facility Jacksonville coordinates Navy ship and aircraft clearance into the Northern Right Whale Critical Habitat and the surrounding Operating Area (OPAREA) based on season, water temperature, weather conditions, and frequency of whale sightings, and provides Northern Right Whale sighting reports to ships, submarines and aircraft. Through coordination with the Florida Fish and Wildlife Conservation Commission (FWCC), Georgia Department of Natural Resources (GDNR), New England Aquarium Early Warning System (EWS) and others, Fleet Area Control and Surveillance Facility Jacksonville organized a communications network and reporting system that ensures the widest possible exchange and dissemination of Northern Right Whale sighting information to Department of Defense (DoD) and civilian shipping.

Approximately 350 right whales, including about 70 mature females, are thought to occur in the western North Atlantic (Kraus *et al.*, 2005). The most recent stock assessment report states that in a review of the photo-ID recapture database for October 2005, 306 individually recognized whales were known to be alive during 2001 (Waring *et al.*, 2007). This number represents a minimum population size, and no abundance estimate with an associated coefficient of variation has been calculated for this population (Waring *et al.*, 2007). Right whales are not normally expected to occur in the Gulf of Mexico.

Based on the Navy's modeled take estimates, it is possible that nearly every North Atlantic right whale in the stock might be harassed (Level B) one or two times during the course of one year, or alternately, fewer animals might be harassed more than one or two times per year. However, as discussed above, Coordinated Unit Level Exercises and Strike Group Exercises utilizing surface vessels (i.e., the exercises that utilize multiple surface vessels and last for multiple days) occur farther than 12 nm from shore and do not occur in the NE OPAREA at all, which means that they do not occur in or directly adjacent to the right whale critical habitat. Therefore, any takes that occur in the

critical habitat would likely be short term and at a lower received level (hull-mounted source on surface vessel is highest power) and would likely not affect annual rates of recruitment or survival.

Last, in the unanticipated event that an injured or entangled North Atlantic right whale is encountered by the Navy at sea during training exercises, the Navy will cease sonar operation within 14 nm (Atlantic) or 17 nm (Gulf of Mexico) of the animal in order to ensure that Navy activities do not add to the stress of an already at risk and weakened (regardless of the original cause) animal. These are the respective estimated distances at which a marine mammal would receive approximately 145 dB SPL, the level at which the risk function predicts 1% of the animals exposed would respond in a manner that NMFS considers Level B harassment. Navy training will not resume in the area until the animal dies or swims away of its own volition.

Humpback Whale

Acoustic analysis indicates that up to 4,198 exposures of humpback whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although 30 of the modeled Level B Harassment takes were predicted to be in the form of TTS, NMFS believes it is unlikely that any humpback whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of humpback whales out to 914 m (1,000 yd) given their large size (Leatherwood and Reeves, 1982), surface behavior, and pronounced blow.

In the North Atlantic Ocean, humpbacks are found from spring through fall on feeding grounds that are located from south of New England to northern Norway (NMFS, 1991). The Gulf of Maine is one of the principal summer feeding grounds for humpback whales in the North Atlantic. The largest numbers of humpback whales are present from mid-April to mid-November. Feeding locations off the northeastern United States include

Stellwagen Bank, Jeffreys Ledge, the Great South Channel, the edges and shoals of Georges Bank, Cashes Ledge, Grand Manan Banks, the banks on the Scotian Shelf, the Gulf of St. Lawrence, and the Newfoundland Grand Banks (CETAP, 1982; Whitehead, 1982; Kenney and Winn, 1986; Weinrich *et al.*, 1997). Feeding most often occurs in relatively shallow waters over the inner continental shelf and sometimes in deeper waters. Large multi-species feeding aggregations (including humpback whales) have been observed over the shelf break on the southern edge of Georges Bank (CETAP, 1982; Kenney and Winn, 1987) and in shelf break waters off the U.S. mid-Atlantic coast (Smith *et al.*, 1996).

Acoustic analysis indicates that no humpback whales will be exposed to sound levels likely to result in Level A harassment. Modeling of the explosive sonobuoys predicts no potential injury or mortality to humpback whales.

Humpback whales in the North Atlantic are thought to belong to five different feeding stocks: Gulf of Maine, Gulf of St. Lawrence, Newfoundland/Labrador, western Greenland, and Iceland. The current best estimate of population size for humpback whales in the North Atlantic, including the Gulf of Maine Stock, is 11,570 individuals (Waring *et al.*, 2007). The best abundance estimate for the Gulf of Maine humpback stock is 902 individuals (Waring *et al.*, 2007). During the winter, most of the North Atlantic population of humpback whales is believed to migrate south to calving grounds in the West Indies region (Whitehead and Moore, 1982; Smith *et al.*, 1999; Stevick *et al.*, 2003). During this time individuals from the various feeding stocks mix through migration routes as well as on the feeding grounds. Although the population composition of the mid-Atlantic is apparently dominated by Gulf of Maine whales, the mixing of multiple stocks through the migratory season suggests that exposures in the Mid-Atlantic and Southeast are likely spread across all of the North Atlantic populations. Sufficient data to estimate the percentage of exposures to each stock is currently not available, however, the estimated takes are spread across the different OPAREAs and time such that focused and harmful impacts to one particular stock are not anticipated.

As mentioned previously, important feeding areas for humpbacks are located in the Northeast. Stellwagen Banks Sanctuary contains some of this important area and the Navy does not currently plan to conduct any activities in this area. Additionally, the Navy has

designated PAAs in the Northeast that include some of these important feeding areas and these areas will be considered in the planning of exercises.

Sei Whale

Acoustic analysis indicates that up to 1,054 exposures of sei whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although 2 of the modeled Level B Harassment takes were predicted to be in the form of TTS, NMFS believes it is unlikely that any sei whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of sei whales out to 914 m (1,000 yd) given their large size (Leatherwood and Reeves, 1982), group size (3 or more), and pronounced blow. No areas of specific importance for reproduction or feeding for sei whales have been identified in the AFAST Study Area. Modeling of the explosive sonobuoys also predicts no potential for injury or mortality to sei whales.

Sei whales in the North Atlantic belong to three stocks: Nova Scotia, Iceland-Denmark Strait, and Northeast Atlantic (Perry *et al.*, 1999). The Nova Scotia Stock occurs in U.S. Atlantic waters (Waring *et al.*, 2007). There are no recent abundance estimates for the Nova Scotia stock (Waring *et al.*, 2007).

Fin and Blue Whales

There are no population estimates for blue whales for the Western North Atlantic except for the Gulf of Saint Lawrence (Waring *et al.*, 2002), for which the estimate is 308. Blue whales are known to occur throughout the deeper waters of the Atlantic, beyond the U.S. EEZ (Clark 1995, Clark and Gagnon 2004). Comparisons can be made between blue and fin whales based on behavior, areas where they are typically found, and feeding habits. The fin whale abundance estimate is the most analogous representation for blue whale abundance within the study area. Therefore, the number of takes estimated for blue whales, as well as

overall conclusions, should be similar to those estimated for fin whales.

Acoustic analysis indicates that up to 881 fin whales and 801 blue whales may be exposed to sound levels likely to result in Level B harassment. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although 2 of the modeled Level B Harassment takes (for fin whales) were predicted to be in the form of TTS, NMFS believes it is unlikely that any fin (or blue) whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of fin (or blue) whales out to 914 m (1,000 yd) given their large size and pronounced blow (Barlow 2003 estimated a high rate of detection for fin whales: 0.90 in Beaufort sea states of 6 or less). No areas of specific importance for reproduction or feeding for fin (or blue) whales have been identified in the AFAST Study Area. Also, acoustic analysis predicts that no fin whales will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality.

Fin whales are currently considered as a single stock in the western North Atlantic. The best abundance estimate for the Western North Atlantic stock of fin whales is 2,814 (Waring *et al.*, 2007).

Minke Whales

Acoustic analysis indicates that up to 414 exposures of minke whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Acoustic analysis indicates that 1 of the modeled Level B Harassment takes would be in the form of TTS. Though minke whales would have to approach the sonar source within a range of 275–500 m (for the most powerful source) to incur TTS and many animals will likely avoid sonar sources to some degree, these animals have relatively cryptic behavior and profile at the surface and therefore could potentially be missed by the lookouts at this distance. Therefore,

NMFS thinks that one minke whale may incur TTS. No areas of specific importance for reproduction or feeding for minke whales have been identified in the AFAST Study Area. Also, acoustic analysis predicts that no minke whales will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality. The best available abundance estimate for minke whales from the Canadian East Coast stock is 2,998 animals (Waring *et al.*, 2007). The minke whale is not expected in the Gulf of Mexico.

Bryde's Whale

Acoustic analysis indicates that up to 34 exposures of Bryde's whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although acoustic modeling estimated that one of the Level B Harassment takes would be in the form of TTS, NMFS believes it is unlikely that any Bryde's whales would incur TTS or be injured because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source for TTS, 10 m for injury), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of Bryde's whales out to 914 m (1,000 yd) given their large size and pronounced blow. Acoustic analysis predicts that no Bryde's whales will be exposed to sound levels or explosive detonations likely to result either in TTS, Level A harassment, or mortality. No areas of specific importance for reproduction or feeding for Bryde's whales have been identified in the AFAST Study Area. The best abundance estimate for Bryde's whales within the northern Gulf of Mexico is 40.

Sperm Whales

Acoustic analysis indicates that up to 9741 (estimated 342 in GOM) exposures of sperm whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although 63 of the modeled Level B Harassment takes were

predicted to be in the form of TTS, NMFS believes it is unlikely that all of the estimated sperm whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this given their large size, pronounced blow, and average group size (7). However, because of their long, deep diving behavior (up to 2-hour dives), NMFS believes that some animals may approach undetected within the distance in which TTS would likely be incurred. Therefore, NMFS estimates that 0–32 sperm whales may incur some degree of TTS from exposure to MFAS/HFAS.

The region of the Mississippi River Delta (Desoto Canyon) has been recognized for high densities of sperm whales and appears to represent an important calving and nursery area for these animals (Townsend, 1935; Collum and Fritts, 1985; Mullin *et al.*, 1994a; Würsig *et al.*, 2000; Baumgartner *et al.*, 2001; Davis *et al.*, 2002; Mullin *et al.*, 2004; Jochens *et al.*, 2006). Sperm whales typically exhibit a strong affinity for deep waters beyond the continental shelf, though in the area of the Mississippi Delta they also occur on the outer continental shelf break. However, there is a PAA designated immediately seaward of the continental shelf associated with the Mississippi Delta, in which the Navy plans to conduct no more than 1 major exercise and which they plan to take into consideration in the planning of unit-level exercises, and therefore NMFS does not expect that impacts will be focused, extensive, or severe in the sperm whale calving area.

Acoustic analysis predicts that no sperm whales will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality. The best abundance estimate for sperm whales for the western North Atlantic is 4,804 and in the northern GOMEX is 1,349 individuals (Mullin and Fulling, 2004).

Pygmy and Dwarf Sperm Whales

Due to the difficulty in differentiating these two species at sea, an estimate of the effects on the two species have been combined (as have abundance estimates in NMFS' stock assessment reports). Acoustic analysis indicates that up to 4384 exposures of Kogia spp. to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures

and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. 44 of the modeled Level B Harassment takes were predicted to be in the form of TTS. NMFS believes it is unlikely that all 44 whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect some of these animals prior to an approach within this distance and implement sonar powerdown or shutdown. However, because of their deep diving behavior (longer time below the surface) and relatively cryptic behavior/profile at the surface, NMFS estimates that 22–44 animals may approach undetected within the distance in which TTS would likely be incurred. As mentioned above, some Kogia sp. vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), but the limited information for Kogia sp. indicates that their clicks are at a much higher frequency and that their maximum hearing sensitivity is between 90 and 150 kHz. It is worth noting that TTS in the range induced by MFAS would reduce sensitivity in the band that killer whales click and echolocate in. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

No areas of specific importance for reproduction or feeding for Kogia spp. have been identified in the AFAST Study Area. Also, acoustic analysis predicts that no pygmy or dwarf sperm whales will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality. The best abundance estimate for both species combined in the western North Atlantic is 395 individuals, and combined in the Northern Gulf of Mexico, the best abundance estimate is 742.

Beaked Whales

Due to the difficulty in differentiating Mesoplodon species from each other, as well as from Ziphius at sea, and because of the lack of a population estimate for bottlenose whales, estimates of the effects on the six species of beaked whales listed in Table 4 have been combined (as have abundance estimates in NMFS's stock assessment reports). Acoustic analysis indicates that up to 2,665 exposures of beaked whales to sound levels likely to result in Level B

harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year: 34 of the modeled Level B Harassment takes were predicted to be in the form of TTS. NMFS believes it is unlikely that all 34 whales will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect a few of these animals prior to an approach within this distance and implement sonar powerdown or shutdown. However, because of their deep diving behavior (longer time below the surface) and cryptic behavior/profile at the surface, NMFS believes that some animals (estimate 17–34) may approach undetected within the distance in which TTS would likely be incurred. As mentioned above and indicated in Table 13, some beaked whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz); however, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS. It is worth noting that TTS in the range induced by MFAS could reduce sensitivity in the band that killer whales click and echolocate in.

No areas of specific importance for reproduction or feeding for beaked whales have been identified in the AFAST Study Area. Also, acoustic analysis predicts that no beaked whales will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality. The best abundance estimate for Mesoplodon species and Cuvier's beaked whales in the northern Gulf of Mexico are 106 and 95 animals, respectively. The best abundance estimate for undifferentiated beaked whales (*Ziphius* and *Mesoplodon* species) in the Western North Atlantic is 3,513.

Although NMFS does not expect mortality of any of these six species to occur as a result of the MFAS/HFAS training exercises (see Mortality paragraph above), because we intend to authorize mortality, we consider the 10 potential mortalities from across the six species potentially effected over the course of 5 years in our negligible impact determination (NMFS only intends to authorize a total of 10 beaked whale mortality takes, but since they could be of any of the species, we

consider the effects of 10 mortalities of any of the six species).

Social Pelagic Species (Except Pilot Whales)

Acoustic analysis predicts that the following numbers of behavioral harassments of the associated species will occur: 502 (false killer whales), 499 (killer whales), 263 (Pygmy killer whales), and 1,533 (melon-headed whales), including the following numbers of TTS, respectively: 10, 41, 7, 22. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Although 80 (total) of the modeled Level B Harassment takes for these four species were predicted to be in the form of TTS, NMFS believes it is unlikely that any individuals of these species will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of any of these four social pelagic species out to 914 m (1,000 yd) given their large size, gregarious behavior, and large average group size. No areas of specific importance for reproduction or feeding for these whales have been identified in the AFAST Study Area.

Acoustic analysis predicts that no individuals of these 4 species will be exposed to sound or explosive levels likely to result either in Level A harassment or mortality. These species are rare or extralimital in the Northwest Atlantic Ocean and estimated takes for these species are anticipated to occur in the GOM. Following are the best estimates of abundance for these species in the GOM: false killer whales—1,038; killer whales—133; pygmy killer whales—408; melon-headed whales—3,451.

Pilot Whales

An estimate of the effects on these two species has been combined (as have abundance estimates in NMFS's stock assessment reports). Acoustic analysis indicates that up to 127,266 exposures of pilot whales to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals

exposed, as a single individual may be exposed multiple times over the course of a year. Although 1,104 of the modeled Level B Harassment takes for pilot whales were predicted to be in the form of TTS, NMFS believes it is unlikely that any individuals of these species will incur TTS because of the distance within which they would have to approach the sonar source (275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of pilot whales out to 914 m (1,000 yd) given their large size, gregarious behavior, and large average group size. Although the model predicted that 1 animal would be exposed to sound levels that would result in Level A Harassment (PTS— injury), NMFS does not believe that any animals would be exposed to these levels for the same reasons listed in the previous sentence (and animals would need to approach within 10 m of the sonar dome). No areas of specific importance for reproduction or feeding for pilot whales have been identified in the AFAST Study Area.

Acoustic analysis predicts that no pilot whales will be exposed to sound or explosive levels likely to result in mortality. The best estimate of abundance for pilot whales (combined short-finned and long-finned) in the western North Atlantic is 31,139 individuals, with a minimum population estimate of 24,866 (Waring *et al.*, 2007). The best estimate of abundance for the short-finned pilot whale in the northern Gulf of Mexico is 2,388 individuals, with a minimum population estimate of 1,628 (Mullin and Fulling, 2004; Waring *et al.*, 2006).

Dolphins

The acoustic analysis predicts that the following numbers of behavioral harassments of the associated species will occur: 2705 (rough-toothed dolphin), 605530 (bottlenose dolphins), 138394 (pantropical spotted dolphin), 376070 (Atlantic spotted dolphin), 21147 (spinner dolphin), 45302 (Clymene dolphin), 173675 (striped dolphin), 95548 (common dolphin), 320 (Fraser's dolphin), 94001 (Risso's dolphins), 20647 (Atlantic white-sided dolphins), and 26243 (white-beaked dolphin). This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be

exposed multiple times over the course of a year.

Although a portion (see table 11) of the modeled Level B Harassment takes for all of these species were predicted to be in the form of TTS, NMFS believes it is unlikely that all of the individuals estimated will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of dolphins out to 914 m (1,000 yd) given their relatively short dives and large average group size. However, the Navy's

proposed mitigation has a provision that allows the Navy to continue operation of MFAS if the animals are clearly bow-riding even after the Navy has initially maneuvered to try and avoid closing with the animals. Since these animals sometimes bow-ride and could potentially be exposed to levels associated with TTS as they approach or depart from bow-riding, we estimate that half or less of the number of animals modeled for MFAS/HFAS TTS might actually sustain TTS (see table 11). As mentioned above and indicated in Table 13, some dolphin vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), however, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

No areas of specific importance for reproduction or feeding for dolphins

have been identified in the AFAST Study Area.

Although acoustic analysis predicted that a small number of several dolphin species would be exposed to levels of sound or explosive detonations likely to result in Level A harassment, for the same reasons stated above (mitigation, avoidance, dolphin behavior), NMFS believes it is unlikely any animals would actually approach within the necessary distance undetected (10 m for sonar, 79–180 m for IEER) to be exposed to injurious levels. Of note, the directionality of the sonar dome is such that dolphins would not likely be exposed to injurious levels of sound while bow-riding. No mortalities from MFAS/HFAS or IEER were predicted.

Table 14 summarizes the best abundance estimates for the different dolphin stocks, except for the bottlenose dolphin, which is addressed below.

	Best Abundance Estimate	
	W. North Atlantic	N. Gulf of Mexico
Rough-toothed dolphin	no estimate available	2223
Pantropical spotted dolphin	4439	91321
Atlantic spotted dolphin	50978	30947
Spinner dolphin	no estimate available	11971
Clymene dolphin	6086	17355
Striped dolphin	94462	6505
Common dolphin	120743	no estimate available
Fraser's dolphin	N/A	726
Risso's dolphin	20479	2169
Atlantic white-sided dolphin	51640	N/A
White-beaked dolphin	no estimate available	no estimate available

Table 14. Best abundance estimates for dolphins (except bottlenose, which are addressed separately in narrative.)

The western North Atlantic includes both coastal and offshore bottlenose dolphin stocks. The best estimate for the western North Atlantic coastal stock of bottlenose dolphins is 15,620 and the best estimate for the western North Atlantic offshore stock of bottlenose dolphins is 81,588 (Waring *et al.*, 2007). Torres *et al.* (2003) found that the offshore morphotype was found exclusively seaward of 34 km (18 NM) and in waters deeper than 34 m, though more recent studies have sampled offshore animals as close as 7.3 km (4 NM) from shore in water depths of 13 m (43 ft) (Garrison *et al.*, 2003). Due to the apparent mixing of the coastal and offshore stocks of bottlenose dolphins along the Atlantic coast it is impossible

to estimate the percentage of each stock potentially exposed to sonar from AFAST. The general distribution of AFAST training activities suggests that the majority of estimated exposures to bottlenose dolphins will be to the offshore stock, however some small proportion of exposures will likely apply to the coastal stock as well.

In the northern GOMEX, the stocks of concern include the continental shelf and oceanic stocks. The continental shelf stock is thought to overlap with both the oceanic stock as well as coastal stocks in some areas (Waring *et al.*, 2007); however, the coastal stock is generally limited to less than 20 m (66 ft) water depths and therefore is not expected to be exposed to sonar from AFAST. The best abundance estimate

for the continental shelf stock is 25,320 (Waring *et al.*, 2007). The estimated abundance for bottlenose dolphins in oceanic waters, pooled from 1996 to 2001, is 2,239 (Mullin and Fulling, 2004). The oceanic stock is provisionally defined for bottlenose dolphins inhabiting waters greater than 200 m (656 ft) (Waring *et al.*, 2007). While the two stocks may overlap to some degree the Navy estimates, based on the distribution of AFAST activities, that most of the predicted exposures will occur to the oceanic stock with the few remaining exposures applying to the continental stock.

Harbor Porpoises

Acoustic analysis indicates that up to 153,481 exposures of harbor porpoises

to sound levels likely to result in Level B harassment may occur. This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. Of note, the Level B harassment threshold for harbor porpoises is 120 dB rms, i.e. any animal exposed above that level is considered to be taken, which means that the vast majority of the estimated takes will occur at relatively low levels (120–140 dB). Although 11 of the modeled Level B Harassment takes for all of these species were predicted to be in the form of TTS, NMFS believes it is unlikely that any of the individuals estimated will incur TTS because of the distance within which they would have to approach the sonar source (depending on conditions, within a range of 275–500 m for the most powerful source), the fact that many animals will likely avoid sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement sonar powerdown or shutdown. Navy lookouts will likely detect a group of harbor porpoises out to 914 m (1,000 yd) given their relatively short dives and large average group size.

Acoustic analysis predicts that no harbor porpoises will be exposed to sound levels or explosive detonations likely to result either in Level A harassment or mortality. No areas of specific importance for reproduction or feeding for harbor porpoises have been identified in the AFAST Study Area. The best abundance estimate for the Gulf of Maine/Bay of Fundy stock of harbor porpoises is 89,700 individuals.

Pinnipeds

The acoustic analysis predicts that the following numbers of behavioral harassments of the associated species will occur: 7,859 (gray seal), 12,659 (harbor seal), 15,718 (hooded seal), and 11,002 (harp seal). This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year. A small number (31, 29, 62, and 43, respectively) of the modeled Level B Harassment takes for these species were predicted to be in the form of TTS. Because the TTS threshold for these species is lower than for cetaceans (i.e., the distance from the source at which they might incur TTS is larger) and because they are typically more difficult to detect, NMFS concurs with the Navy that up to the indicated number of

pinnipeds could be exposed to levels of sonar associated with TTS. As mentioned above and indicated in Table 13, some pinniped vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz); however, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

No areas of specific importance for reproduction or feeding for pinnipeds have been identified in the AFAST Study Area. Acoustic analysis predicts that no pinnipeds will be exposed to sound levels or explosive detonations likely to result in Level A harassment or mortality. Best estimates for the north Atlantic for the hooded and harp seals are, respectively, 592,100 and 5.9 million. The best estimate for the western north Atlantic stock of the harbor seal is 99,340. There is no current best estimate for gray seals in the north Atlantic, though Canada's DFO estimated 99,340 in 1995.

Preliminary Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the total taking from Navy training exercises utilizing MFAS/HFAS and underwater explosives (IEER) in the AFAST Study Area will have a negligible impact on the affected species or stocks. NMFS has proposed regulations for these exercises that prescribe the means of affecting the least practicable adverse impact on marine mammals and their habitat and set forth requirements pertaining to the monitoring and reporting of that taking.

Subsistence Harvest of Marine Mammals

NMFS has preliminarily determined that the issuance of 5-yr regulations and subsequent LOAs for Navy training exercises in the AFAST Study Area would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use, since there are no such uses in the specified area.

ESA

There are six marine mammal species and six sea turtle species that are listed as endangered under the ESA with confirmed or possible occurrence in the study area: humpback whale, North Atlantic right whale, sei whale, fin whale, blue whale, sperm whale, loggerhead sea turtle, the green sea turtle, hawksbill sea turtle, leatherback

sea turtle, the Kemp's ridley sea turtle, and the olive ridley sea turtle. The Navy has begun consultation with NMFS pursuant to section 7 of the ESA, and NMFS will also consult internally on the issuance of an LOA under section 101(a)(5)(A) of the MMPA for AFAST activities. Consultation will be concluded prior to a determination on the issuance of the final rule and an LOA.

NEPA

NMFS has participated as a cooperating agency on the Navy's Draft Environmental Impact Statement (DEIS) for AFAST, which was published on February 15, 2008. The Navy's DEIS is posted on NMFS's website: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS intends to adopt the Navy's Final EIS (FEIS), if adequate and appropriate. Currently, we believe that the adoption of the Navy's FEIS will allow NMFS to meet its responsibilities under NEPA for the issuance of an LOA for AFAST. If the Navy's FEIS is deemed not to be adequate, NMFS would supplement the existing analysis and document to ensure that we comply with NEPA prior to the issuance of the final rule or LOA.

Classification

This action does not contain a collection of information requirement for purposes of the Paperwork Reduction Act.

Pursuant to the procedures established to implement section 6 of Executive Order 12866, the Office of Management and Budget has determined that this proposed rule is significant.

Pursuant to the Regulatory Flexibility Act, the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The Regulatory Flexibility Act requires Federal agencies to prepare an analysis of a rule's impact on small entities whenever the agency is required to publish a notice of proposed rulemaking. However, a Federal agency may certify, pursuant to 5 U.S.C. section 605(b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the entity that will be affected by this rulemaking, not a small governmental jurisdiction, small organization or small business, as defined by the Regulatory Flexibility Act. Any requirements imposed by a

Letter of Authorization issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, will be applicable only to the Navy. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

Dated: September 25, 2008.

James Balsiger,

*Acting Assistant Administrator for Fisheries,
National Marine Fisheries Service.*

For reasons set forth in the preamble, 50 CFR part 216 is proposed to be amended as follows:

PART 216—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

1. The authority citation for part 216 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

2. Subpart V is added to part 216 to read as follows:

Subpart V—Taking Marine Mammals Incidental to U.S. Navy's Atlantic Fleet Active Sonar Training (AFAST)

Sec.

216.240 Specified activity and specified geographic region.

216.241 Definitions.

216.242 Permissible methods of taking.

216.243 Prohibitions.

216.244 Mitigation.

216.245 Requirements for monitoring and reporting.

216.246 Applications for Letters of Authorization.

216.247 Letters of Authorization.

216.248 Renewal of Letters of Authorization.

216.249 Modifications to Letters of Authorization and adaptive management.

Table 1 to Subpart V—"Summary of monitoring effort proposed in draft Monitoring Plan for AFAST"

Figure 1 to Subpart V [Reserved]

Figure 2 to Subpart V—"AFAST Planning Awareness Areas"

Subpart V—Taking Marine Mammals Incidental to U.S. Navy's Atlantic Fleet Active Sonar Training (AFAST)

§ 216.240 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occur incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the AFAST Study Area, which

extends east from the Atlantic Coast of the U.S. to 45 degrees W. long. and south from the Atlantic and Gulf of Mexico Coasts to approximately 23 degrees N. lat., excluding the Bahamas (see Figure 1–1 in the Navy's Application).

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the use of the following mid-frequency active sonar (MFAS) sources, high frequency active sonar (HFAS) sources, or explosive sonobuoys for U.S. Navy anti-submarine warfare (ASW), mine warfare (MIW) training, maintenance, or research, development, testing, and evaluation (RDT&E) in the amounts indicated below (+/- 10 percent):

(1) AN/SQS–53 (hull-mounted sonar)—up to 16,070 hours over the course of 5 years (an average of 3,214 hours per year).

(2) AN/SQS–56 (hull-mounted sonar)—up to 8,420 hours over the course of 5 years (an average of 1,684 hours per year).

(3) AN/SQS–56 or 53 (hull mounted sonar in object detection mode)—up to 1,080 hours over the course of 5 years (an average of 216 hours per year).

(4) AN/BQQ–10 or 5 (submarine sonar)—up to 49,880 pings over the course of 5 years (an average of 9,976 pings per year)(an average of 1 ping per two hours during training events, 60 pings per hour for maintenance).

(5) AN/AQS–22 or 13 (helicopter dipping sonar)—up to 14,760 dips over the course of 5 years (an average of 2,952 dips per year—10 pings per five-minute dip).

(6) SSQ–62 (Directional Command Activated Sonobuoy System (DICASS) sonobuoys)—up to 29,265 sonobuoys over the course of 5 years (an average of 5,853 sonobuoys per year).

(7) MK–48 (heavyweight torpedoes)—up to 160 torpedoes over the course of 5 years (an average of 32 torpedoes per year).

(8) MK–46 or 54 (lightweight torpedoes)—up to 120 torpedoes over the course of 5 years (an average of 24 torpedoes per year).

(9) AN/SSQ–110A (IEER explosive sonobuoy)—up to 4,360 sonobuoys over the course of 5 years (an average of 872 buoys per year).

(10) AN/SQQ–32 (over the side mine-hunting sonar)—up to 22,370 hours over the course of 5 years (an average of 4,474 hours per year).

(11) AN/SLQ–25 (NIXIE—towed countermeasure)—up to 1,660 hours over the course of 5 years (an average of 332 hours per year).

(12) AN/BQS–15 (submarine navigation)—up to 2,250 hours over the

course of 5 years (an average of 450 hours per year)

(13) MK–1 or 2 or 3 or 4 (Submarine-fired Acoustic Device Countermeasure (ADC))—up to 1,125 ADCs over the course of 5 years (an average of 225 ADCs per year)

(14) Noise Acoustic Emitters (NAE—Sub-fired countermeasure)—up to 635 NAEs over the course of 5 years (an average of 127 NAEs per year)

§ 216.241 Definitions.

The following definitions are utilized in these regulations:

(a) *Uncommon Stranding Event (USE)*—A stranding event that takes place during a major training exercise (MTE) and involves any one of the following:

(1) Two or more individuals of any cetacean species (not including mother/calf pairs, unless of species of concern listed in next bullet) found dead or live on shore within a two-day period and occurring within 30 miles of one another.

(2) A single individual or mother/calf pair of any of the following marine mammals of concern: beaked whale of any species, dwarf or pygmy sperm whales, melon-headed whales, pilot whales, right whales, humpback whales, sperm whales, blue whales, fin whales, or sei whales.

(3) A group of 2 or more cetaceans of any species exhibiting indicators of distress.

(b) *Shutdown*—The cessation of MFAS/HFAS operation or detonation of explosives within 14 nm (Atlantic Ocean) or 17 nm (Gulf of Mexico) of any live, in the water, animal involved in a USE.

(c) *Exhibiting Indicators of Distress*—Animals exhibiting an uncommon combination of behavioral and physiological indicators typically associated with distressed or stranded animals. This situation would be identified by a qualified individual and typically includes, but is not limited to, some combination of the following characteristics:

(1) Marine mammals continually circling or moving haphazardly in a tightly packed group—with or without a member occasionally breaking away and swimming towards the beach.

(2) Abnormal respirations including increased or decreased rate or volume of breathing, abnormal content or odor.

(3) Presence of an individual or group of a species that has not historically been seen in a particular habitat, for example a pelagic species in a shallow bay when historic records indicate that it is a rare event.

(4) Abnormal behavior for that species, such as abnormal surfacing or

swimming pattern, listing, and abnormal appearance.

(d) *Major Training Exercise*—MTEs, within the context of the AFAST Stranding Plan, include:

(1) Southeastern Integrated Training Initiative (SEASWITI)—4 events annually, 5 to 7 days per entire event.

(2) Integrated ASW Course (IAC)—5 events annually, 2 to 5 days per entire event.

(3) Group Sails—20 events annually, 2 to 3 days per entire event.

(4) Composite Training Unit Exercise (COMPTUEX)—5 events annually, 21 days per entire event.

(5) Joint Task Force Exercise (JTTEX)—2 events annually, 10 days per entire event.

It should be noted that sonar is typically not in use throughout an entire event.

§ 216.242 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 216.247, the Holder of the Letter of Authorization (hereinafter “Navy”) may incidentally, but not intentionally, take marine mammals within the area described in § 216.240(b), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) The activities identified in § 216.240(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 216.240(c) is limited to the following species, by the indicated method of take and the indicated number of times (estimated based on the authorized amounts of sound source operation):

(1) Level B Harassment (+/– 10 percent of the take estimate indicated below):

(i) Mysticetes:

(A) North Atlantic right whale (*Eubalaena glacialis*)—666.

(B) Humpback whale (*Megaptera novaeangliae*)—4,198.

(C) Minke whale (*Balaenoptera acutorostrata*)—414.

(D) Sei whale (*Balaenoptera borealis*)—1,054.

(E) Fin whale (*Balaenoptera physalus*)—881.

(F) Blue whale (*Balaenoptera musculus*)—801.

(F) Bryde’s whale (*Balaenoptera edeni*)—34.

(ii) Odontocetes:

(A) Sperm whales (*Physeter macrocephalus*)—9,741.

(B) Pygmy or dwarf sperm whales (*Kogia breviceps* or *Kogia sima*)—4,384.

(C) Beaked Whales (Cuvier’s, True’s, Gervais’, Sowerby’s, Blainville’s, Northern bottlenose whale) (*Ziphius cavirostris*, *Mesoplodon mirus*, *M. europaeus*, *M. bidens*, *M. densirostris*, *Hyperoodon ampullatus*)—2665.

(D) Rough-toothed dolphin (*Steno bredanensis*)—2705.

(E) Bottlenose dolphin (*Tursiops truncatus*)—605530.

(F) Pan-tropical dolphin (*Stenella attenuata*)—138394.

(G) Atlantic spotted dolphin (*Stenella frontalis*)—376070.

(H) Spinner dolphin (*Stenella longirostris*)—21147.

(I) Clymene dolphin (*Stenella clymene*)—45823.

(J) Striped dolphin (*Stenella coeruleoalba*)—174583.

(K) Common dolphin (*Delphinus spp.*)—96409.

(L) Fraser’s dolphin (*Lagenodelphis hosei*)—320.

(M) Risso’s dolphin (*Grampus griseus*)—94001.

(N) Atlantic white-sided dolphin (*Lagenorhynchus acutus*)—20647.

(O) White-beaked dolphin (*Lagenorhynchus albirostris*)—26243.

(P) Melon-headed whale (*Peponocephala electra*)—1533.

(Q) Pygmy killer whale (*Feresa attenuata*)—263.

(R) False killer whale (*Pseudorca crassidens*)—502.

(S) Killer whale (*Orcinus orca*)—499.

(T) Pilot whales (Short-finned pilot or long-finned) (*Globicephala macrorhynchus* or *G. melas*)—127266.

(U) Harbor porpoise (*Phocoena phocoena*)—153481.

(iii) Pinnipeds:

(A) Gray seal (*Halichoerus grypus*)—7859.

(B) Harbor seal (*Phoca vitulina*)—12659.

(C) Hooded seal (*Cystophora cristata*)—15718.

(D) Harp seal (*Pagophilus groenlandica*)—11002.

(2) Level A Harassment and/or mortality of no more than 10 beaked whales (total), of any of the species listed in § 216.242(c)(1)(ii)(C) over the course of the 5-year regulations.

§ 216.243 Prohibitions.

No person in connection with the activities described in § 216.240 may:

(a) Take any marine mammal not specified in § 216.242(c);

(b) Take any marine mammal specified in § 216.242(c) other than by incidental take as specified in § 216.242(c)(1) and (2);

(c) Take a marine mammal specified in § 216.242(c) if such taking results in

more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 216.247.

§ 216.244 Mitigation.

(a) The activity identified in § 216.240(a) must be conducted in a manner that minimizes, to the greatest extent practicable, adverse impacts on marine mammals and their habitats.

(b) When conducting training, maintenance, or RDT&E activities and operating the sound sources identified in § 216.240(a), the mitigation measures contained in the Letter of Authorization issued under §§ 216.106 and 216.247 must be implemented. These mitigation measures include (but are not limited to):

(1) Mitigation Measures for ASW and MIW training:

(i) All lookouts onboard platforms involved in ASW training events shall review the NMFS-approved Marine Species Awareness Training (MSAT) material prior to use of midfrequency active sonar.

(ii) All Commanding Officers, Executive Officers, and officers standing watch on the Bridge shall review the MSAT material prior to a training event employing the use of mid- or high frequency active sonar.

(iii) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (NAVEDTRA, 12968-B).

(iv) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, Lookouts shall complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects).

(v) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of mitigation measures if marine mammals are spotted.

(vi) On the bridge of surface ships, there shall always be at least three people on watch whose duties include observing the water surface around the vessel.

(vii) All surface ships participating in ASW exercises shall, in addition to the three personnel on watch noted previously, have at all times during the

exercise at least two additional personnel on watch as lookouts.

(viii) Personnel on lookout and officers on watch on the bridge shall have at least one set of binoculars available for each person to aid in the detection of marine mammals.

(ix) On surface vessels equipped with mid-frequency active sonar, pedestal mounted "Big Eye" (20x110) binoculars shall be present and in good working order.

(x) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-B). Surface lookouts would scan the water from the ship to the horizon and be responsible for all contacts in their sector. In searching the assigned sector, the lookout would always start at the forward part of the sector and search aft (toward the back). To search and scan, the lookout would hold the binoculars steady so the horizon is in the top third of the field of vision and direct the eyes just below the horizon. The lookout would scan for approximately five seconds in as many small steps as possible across the field seen through the binoculars. They would search the entire sector in approximately five-degree steps, pausing between steps for approximately five seconds to scan the field of view. At the end of the sector search, the glasses should be lowered to allow the eyes to rest for a few seconds, and then the lookout would search back across the sector with the naked eye.

(xi) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook. At night, lookouts would not sweep the horizon with their eyes because this method is not effective when vessel is moving. Lookouts would scan the horizon in a series of movements that should allow their eyes to come to periodic rests as they scan the sector. When visually searching at night, they should look a little to one side and out of the corners of their eyes, paying attention to the things on the outer edges of their field of vision.

(xii) Personnel on lookout shall be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

(xiii) Commanding Officers shall make use of marine mammal detection cues and information to limit interaction with marine mammals to the maximum extent possible consistent with safety of the ship.

(xiv) All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) shall monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

(xv) Units shall use training lookouts to survey for marine mammals prior to commencement and during the use of active sonar.

(xvi) During operations involving sonar, personnel shall utilize all available sensor and optical systems (such as Night Vision Goggles) to aid in the detection of marine mammals.

(xvii) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine mammals as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(xviii) Aircraft with deployed sonobuoys shall use only the passive capability of sonobuoys when marine mammals are detected within 200 yards (182 m) of the sonobuoy.

(xix) Marine mammal detections shall be reported immediately to assigned Aircraft Control Unit (if participating) for further dissemination to ships in the vicinity of the marine mammals. This action would occur when it is reasonable to conclude that the course of the ship will likely close the distance between the ship and the detected marine mammal.

(xx) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) the Navy shall ensure that sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals are within 1000 yards (914 m) of the sonar dome (the bow).

(A) Ships and submarines shall continue to limit maximum transmission levels by this 6-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1828 m) beyond the location of the last detection.

(B) Should a marine mammal be detected within or closing to inside 457 m (500 yd) of the sonar dome, active sonar transmissions would be limited to at least 10 dB below the equipment's

normal operating level. Ships and submarines shall continue to limit maximum ping levels by this 10-dB factor until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2000 yards (1828 m) beyond the location of the last detection.

(C) Should the marine mammal be detected within or closing to inside 183 m (200 yd) of the sonar dome, active sonar transmissions would cease. Sonar shall not resume until the marine mammal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yards (1828 m) beyond the location of the last detection.

(D) If the need for power-down should arise as detailed in "Safety Zones" above, Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down shall be to 229 dB, regardless of at what level above 235 sonar was being operated).

(xxi) Prior to start up or restart of active sonar, operators shall check that the Safety Zone radius around the sound source is clear of marine mammals.

(xxii) Sonar levels (generally)—The Navy shall operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(xxiii) Helicopters shall observe/survey the vicinity of an ASW Operation for 10 minutes before the first deployment of active (dipping) sonar in the water.

(xxiv) Helicopters shall not dip their sonar within 200 yards (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yards (183 m) after pinging has begun.

(xxv) Submarine sonar operators shall review detection indicators of close-aboard marine mammals prior to the commencement of ASW training activities involving active sonar.

(xxvi) Dolphin bowriding—If, after conducting an initial maneuver to avoid close quarters with dolphins, the ship concludes that dolphins are deliberately closing in on the ship to ride the vessel's bow wave, no further mitigation actions would be necessary because dolphins are out of the main transmission axis of the active sonar while in the shallow-wave area of the vessel bow.

(xxvii) TORPEXs conducted in the northeast North Atlantic right whale critical habitat (as designated in 50 CFR Part 226) shall implement the below measures.

(A) All torpedo-firing operations shall take place during daylight hours.

(B) During the conduct of each test, visual surveys of the test area shall be conducted by all vessels and aircraft involved in the exercise to detect the presence of marine mammals. Additionally, trained observers shall be placed on the submarine, spotter aircraft, and the surface support vessel. All participants shall report sightings of any marine mammals, including negative reports, prior to torpedo firings. Reporting requirements shall be outlined in the test plans and procedures written for each individual exercise, and shall be emphasized as part of pre-exercise briefings conducted with all participants.

(C) Observers shall receive NMFS-approved training in field identification, distribution, and relevant behaviors of marine mammals of the western north Atlantic. Observers shall fill out Standard Sighting Forms and the data shall be housed at the Naval Undersea Warfare Center Division Newport (NUWC DIVNPT). Any sightings of North Atlantic right whales shall be immediately communicated to the Sighting Advisory System (SAS). All platforms shall have onboard a copy of:

(1) The Guide to Marine Mammals and Turtles of the US Atlantic and Gulf of Mexico (Wynne and Schwartz 1999).

(2) The NMFS Critical Sightings Program placard.

(3) Right Whales, Guidelines to Mariners placard.

(D) In addition to the visual surveillance discussed above, dedicated aerial surveys shall be conducted utilizing a fixed-wing aircraft. An aircraft with an overhead wing (i.e., Cessna Skymaster or similar) shall be used to facilitate a clear view of the test area. Two trained observers, in addition to the pilot, shall be embarked on the aircraft. Surveys shall be conducted at an approximate altitude of 1000 ft (305 m) flying parallel track lines at a separation of 1 nmi (1.85 km), or as necessary to facilitate good visual coverage of the sea surface. While conducting surveillance, the aircraft shall maintain an approximate speed of 100 knots (185 km/hr). Since factors that affect visibility are highly dependent on the specific time of day of the survey, the flight operator will have the flexibility to adjust the flight pattern to reduce glare and improve visibility. The entire test site shall be surveyed initially, but once preparations are being made for an actual test launch, survey effort shall be concentrated over the vicinity of the individual test location. Further, for approximately ten minutes immediately prior to launch, the aircraft

shall racetrack back and forth between the launch vessel and the target vessel.

(E) Commencement of an individual torpedo test scenario shall not occur until observers from all vessels and aircraft involved in the exercise have reported to the Officer in Tactical Command (OTC) and the OTC has declared that the range is clear of marine mammals. Should marine mammals be present within or seen moving toward the test area, the test shall be either delayed or moved as required to avoid interference with the animals.

(F) The TORPEX shall be suspended if the Beaufort Sea State exceeds 3 or if visibility precludes safe operations.

(G) Vessel speeds:

(1) During transit through the northeastern North Atlantic right whale critical habitat, surface vessels and submarines shall maintain a speed of no more than 10 knots (19 km/hr) while not actively engaged in the exercise procedures.

(2) During TORPEX operations, a firing vessel should, where feasible, not exceed 10 knots. When a submarine is used as a target, vessel speeds should, where feasible, not exceed 18 knots. However, on occasion, when surface vessels are used as targets, the vessel may exceed 18 kts in order to fully test the functionality of the torpedoes. This increased speed would occur for a short period of time (e.g., 10–15 minutes) to evade the torpedo when fired upon.

(H) In the event of an animal strike, or if an animal is discovered that appears to be in distress, the Navy shall immediately report the discovery through the appropriate Navy chain of Command.

(xxviii) The Navy shall abide by the following additional measures:

(A) The Navy shall avoid planning major exercises in the specified planning awareness areas (PAAs—see Figure 2 of this Subpart) where feasible. Should national security require the conduct of more than four major exercises (C2X, JTFEX, SEASWITI, or similar scale event) in these areas (meaning all or a portion of the exercise) per year the Navy shall provide NMFS with prior notification and include the information in any associated after-action or monitoring reports.

(B) The Navy shall conduct no more than one of the four above-mentioned major exercises (COMPTUEX, JTFEX, SEASWITI or similar scale event) per year in the Gulf of Mexico to the extent operationally feasible. If national security needs require more than one major exercise to be conducted in the Gulf of Mexico PAAs, the Navy shall provide NMFS with prior notification

and include the information in any associated after-action or monitoring reports.

(C) The Navy shall include the PAAs in the Navy's Protective Measures Assessment Protocol (PMAP) (implemented by the Navy for use in the protection of the marine environment) for unit level situational awareness (i.e., exercises other than COMPTUEX, JTFEX, SEASWITI) and planning purposes.

(D) Helicopter Dipping Sonar—Unless otherwise dictated by national security needs, the Navy shall minimize helicopter dipping sonar activities within the southeastern areas of North Atlantic right whale critical habitat (as designated in 50 CFR Part 226) from November 15–April 15.

(E) Object Detection Exercises—The Navy shall implement the following measures regarding object detection activities in the southeastern areas of the North Atlantic right whale critical habitat:

(1) The Navy shall reduce the time spent conducting object detection exercises in the NARW critical habitat;

(2) Prior to conducting surface ship object detection exercises in the southeastern areas of the North Atlantic right whale critical habitat during the time of November 15–April 15, ships shall contact FACSFAJAX to obtain the latest right whale sighting information. FACSFAJAX shall advise ships of all reported whale sightings in the vicinity of the critical habitat and associated areas of concern (which extend 9 km (5 NM) seaward of the designated critical habitat boundaries). To the extent operationally feasible, ships shall avoid conducting training in the vicinity of recently sighted right whales. Ships shall maneuver to maintain at least 500 yards separation from any observed whale, consistent with the safety of the ship.

(xxix) The Navy shall abide by the letter of the “Stranding Response Plan for Major Navy Training Exercises in the AFAST Study Area” (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>), to include the following measures:

(A) Shutdown Procedures—When an Uncommon Stranding Event (USE—defined in § 216.241) occurs during a Major Training Exercise (MTE, including SEASWITI, IAC, Group Sails, JTFEX, or COMPTUEX) in the AFAST Study Area, the Navy shall implement the procedures described below.

(1) The Navy shall implement a Shutdown (as defined § 216.241) when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the AFAST Stranding

Communication Protocol that a USE involving live animals has been identified and that at least one live animal is located in the water. NMFS and Navy shall communicate, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures.

(2) Any shutdown in a given area shall remain in effect in that area until NMFS advises the Navy that the subject(s) of the USE at that area die or are euthanized, or that all live animals involved in the USE at that area have left the area (either of their own volition or herded).

(3) If the Navy finds an injured or dead animal of any species other than North Atlantic right whale floating at sea during an MTE, the Navy shall notify NMFS immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal (s), the condition of the animal (s) including carcass condition if the animal(s) is/are dead, location, time of first discovery, observed behaviors (if alive), and photo or video (if available). Based on the information provided, NMFS shall determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(4) If the Navy finds an injured (or entangled) right whale floating at sea during an MTE, the Navy shall implement shutdown procedures (14 or 17 nm, as defined below) around the animal immediately (without waiting for notification from NMFS). The Navy shall then notify NMFS (pursuant to the AFAST Communication Protocol, which is still in development) immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal (s), the condition of the animal (s) including carcass condition if the animal(s) is/are dead, location, time of first discovery, observed behaviors (if alive), and photo or video (if available). Subsequent to the discovery of the injured whale, any Navy platforms in the area shall report any right whale sightings to NMFS (or to a contact that can alert NMFS as soon as possible). Based on the information provided, NMFS may initiate/organize an aerial survey (by requesting the Navy's assistance pursuant to the MOA (see (xxix)(C) below) or by other available means) to see if other right whales are in the vicinity. Based on the information provided by the Navy and, if necessary, the outcome of the aerial surveys, NMFS shall determine whether a continued shutdown is appropriate on a case-by-case basis. Though it will be determined on a case-by-case basis after

Navy/NMFS discussion of the situation, NMFS anticipates that the shutdown will continue within 14 or 17 nm of a live, injured/entangled right whale until the animal dies or has not been seen for at least 3 hours (either by NMFS staff attending the injured animal or Navy personnel monitoring the area around where the animal was last sighted).

(5) If the Navy finds a dead right whale floating at sea during an MTE, the Navy shall notify NMFS (pursuant to AFAST Stranding Communication Protocol, which is still in development) immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal (s), the condition of the animal (s) including carcass condition if the animal(s) is/are dead, location, time of first discovery, observed behaviors (if alive), and photo or video (if available). Subsequent to the discovery of the dead whale, if the Navy is operating sonar in the area they shall use increased vigilance (in looking for right whales) and all platforms in the area shall report sightings of right whales to NMFS as soon as possible. Based on the information provided, NMFS may initiate/organize an aerial survey (by requesting the Navy's assistance pursuant to the memorandum of agreement (see (xxix)(C) below) or by other available means) to see if other right whales are in the vicinity. Based on the information provided by the Navy and, if necessary, the outcome of the aerial surveys, NMFS will determine whether any additional protective measures are necessary on a case-by-case basis.

(6) In the event, following a USE, that: (a) Qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or (b) animals are seen repeatedly heading for the open ocean but turning back to shore, NMFS and the Navy should coordinate (including an investigation of other potential anthropogenic stressors in the area) to determine if the proximity of MFAS/HFAS training activities or explosive detonations, though farther than 14 or 17 nm from the distressed animal(s), is likely decreasing the likelihood that the animals return to the open water. If so, NMFS and the Navy shall further coordinate to determine what measures are necessary to further minimize that likelihood and implement those measures as appropriate.

(B) Within 72 hours of NMFS notifying the Navy of the presence of a USE, the Navy shall provide available information to NMFS (per the AFAST Communication Protocol) regarding the location, number and types of acoustic/

explosive sources, direction and speed of units using MFAS/HFAS, and marine mammal sightings information associated with training activities occurring within 80 nm (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80 nm (148 km), 72 hours, period prior to the event shall be provided as soon as it becomes available. The Navy shall provide NMFS investigative teams with additional relevant unclassified information as requested, if available.

(C) Memorandum of Agreement (MOA)—The Navy and NMFS shall develop an MOA, or other mechanism consistent with federal fiscal law requirements (and all other applicable laws), that allows the Navy to assist NMFS with the Phase 1 and 2 Investigations of USEs through the provision of in-kind services, such as (but not limited to) the use of plane/boat/truck for transport of personnel involved in the stranding response or investigation or animals, use of Navy property for necropsies or burial, or assistance with aerial surveys to discern the extent of a USE. The Navy may assist NMFS with the Investigations by providing one or more of the in-kind services outlined in the MOA, when available and logistically feasible and when the assistance does not negatively affect Fleet operational commitments.

(2) Mitigation for IEER—The following are protective measures for use with Extended Echo Ranging/Improved Extended Echo Ranging (EER/IEER) given an explosive source generates the acoustic wave used in this sonobuoy.

(i) Navy crews shall conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search should be conducted below 500 yards (457 m) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft training activities, crews are allowed to conduct coordinated area clearances.

(ii) Navy crews shall conduct a minimum of 30 minutes of visual and acoustic monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

(iii) For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 1,000 yards (914 m) of observed marine mammal activity, deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 1,000 yards (914 m) of the intended post position, co-locate the explosive source

sonobuoy (AN/SSQ-110A) (source) with the receiver.

(iv) When able, Navy crews shall conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to checking off station and out of communication range of these sensors.

(v) Aural Detection: If the presence of marine mammals is detected aurally, then that should cue the aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the Navy crew may continue multi-static active search.

(vi) Visual Detection:

(A) If marine mammals are visually detected within 1,000 yards (914 m) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated.

(B) Navy Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 1,000 yards (914 m) safety buffer.

(C) Navy Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 1,000 yards (914 m) safety buffer.

(vii) Navy Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews shall ensure that a 1,000 yard (914 m) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

(viii) Navy Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

(ix) The navy shall ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that cannot be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

(x) Mammal monitoring shall continue until out of own-aircraft sensor range.

(3) Protective Measures related to Vessel Transit and North Atlantic Right Whales.

(i) Mid-Atlantic, Offshore of the Eastern United States.

(A) All Navy vessels are required to use extreme caution and operate at a slow, safe speed consistent with mission and safety during the months indicated below and within a 37 km (20 nm) arc (except as noted) of the specified associated reference points:

(1) South and East of Block Island (37 km (20 NM) seaward of line between 41–44.9 N. lat. 071–51.15 W. long. and 41–18.58 N. lat. 070–50.23 W. long): Sept–Oct and Mar–Apr.

(2) New York / New Jersey (40–30.64 N. lat. 073–57.76 W. long.): Sep–Oct and Feb–Apr.

(3) Delaware Bay (Philadelphia) (38–52.13 N. lat. 075–1.93 W. long.): Oct–Dec and Feb–Mar.

(4) Chesapeake Bay (Hampton Roads and Baltimore) (37–1.11 . lat. 075–57.56 W. long.): Nov–Dec and Feb–Apr.

(5) North Carolina (34–41.54 N. lat. 076–40.20 W. long.): Dec–Apr.

(6) South Carolina (33–11.84 N. lat. 079–8.99 W. long. and 32–43.39 N. lat. 079–48.72 W. long.): Oct–Apr.

(B) During the months indicated in (A), above, Navy vessels shall practice increased vigilance with respect to avoidance of vessel-whale interactions along the mid-Atlantic coast, including transits to and from any mid-Atlantic ports not specifically identified above.

(C) All surface units transiting within 56 km (30 NM) of the coast in the mid-Atlantic shall ensure at least two watchstanders are posted, including at least one lookout who has completed required MSAT training.

(D) Navy vessels shall not knowingly approach any whale head on and shall maneuver to keep at least 457 m (1,500 ft) away from any observed whale, consistent with vessel safety.

(ii) Southeast Atlantic, Offshore of the Eastern United States—for the purposes of the measures below (within (ii)), the "southeast" encompasses sea space from Charleston, South Carolina, southward to Sebastian Inlet, Florida, and from the coast seaward to 148 km (80 NM) from shore. North Atlantic right whale critical habitat is the area from 31–15 N. lat. to 30–15 N. lat. extending from the coast out to 28 km (15 NM), and the area from 28–00 N. lat. to 30–15 N. lat. from the coast out to 9 km (5 NM). All mitigation measures described here that apply to the critical habitat also apply to an associated area of concern which extends 9 km (5 NM) seaward of the designated critical habitat boundaries.

(A) Prior to transiting or training in the critical habitat or associated area of concern, ships shall contact Fleet Area Control and Surveillance Facility, Jacksonville, to obtain latest whale sighting and other information needed to make informed decisions regarding safe speed and path of intended movement. Subs shall contact Commander, Submarine Group Ten for similar information.

(B) The following specific mitigation measures apply to activities occurring within the critical habitat and an associated area of concern which extends 9 km (5 NM) seaward of the designated critical habitat boundaries:

(1) When transiting within the critical habitat or associated area of concern, vessels shall exercise extreme caution and proceed at a slow safe speed. The speed shall be the slowest safe speed that is consistent with mission, training and operations.

(2) Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than 12 hours old.

(3) Additionally, circumstances could arise where, in order to avoid North Atlantic right whale(s), speed reductions could mean vessel must reduce speed to a minimum at which it can safely keep on course or vessels could come to an all stop.

(4) Vessels shall avoid head-on approaches to North Atlantic right whale(s) and shall maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when a change of course would create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

(5) Ships shall not transit through the critical habitat or associated area of concern in a North-South direction.

(6) Ships, surfaced subs, and aircraft shall report any whale sightings to Fleet Area Control and Surveillance Facility, Jacksonville, by the most convenient and fastest means. The sighting report shall include the time, latitude/longitude, direction of movement and number and description of whale (i.e., adult/calf).

(iii) Northeast Atlantic, Offshore of the Eastern United States

(A) Prior to transiting the Great South Channel or Cape Cod Bay critical habitat areas, ships shall obtain the latest right whale sightings and other information needed to make informed decisions regarding safe speed. The Great South

Channel critical habitat is defined by the following coordinates: 41–00 N. lat., 69–05 W. long.; 41–45 N. lat., 69–45 W. long.; 42–10 N. lat., 68–31 W. long.; 41–38 N. lat., 68–13 W. long.. The Cape Cod Bay critical habitat is defined by the following coordinates: 42–04.8 N. lat., 70–10 W. long.; 42–12 N. lat., 70–15 W. long.; 42–12 N. lat., 70–30 W. long.; 41–46.8 N. lat., 70–30 W. long.

(B) Ships, surfaced subs, and aircraft shall report any North Atlantic right whale sightings (if the whale is identifiable as a right whale) off the northeastern U.S. to Patrol and Reconnaissance Wing (COMPATRECONWING). The report shall include the time of sighting, lat/long, direction of movement (if apparent) and number and description of the whale(s).

(C) Vessels or aircraft that observe whale carcasses shall record the location and time of the sighting and report this information as soon as possible to the cognizant regional environmental coordinator. All whale strikes must be reported. This report shall include the date, time, and location of the strike; vessel course and speed; operations being conducted by the vessel; weather conditions, visibility, and sea state; description of the whale; narrative of incident; and indication of whether photos/videos were taken. Navy personnel are encouraged to take photos whenever possible.

(D) Specific mitigation measures related to activities occurring within the critical habitat include the following:

(1) Vessels shall avoid head-on approaches to North Atlantic right whale(s) and shall maneuver to maintain at least 457 m (500 yd) of separation from any observed whale if deemed safe to do so. These requirements do not apply if a vessel's safety is threatened, such as when change of course would create an imminent and serious threat to person, vessel, or aircraft, and to the extent vessels are restricted in the ability to maneuver.

(2) When transiting within the critical habitat or associated area of concern, vessels shall use extreme caution and operate at a safe speed so as to be able to avoid collisions with North Atlantic right whales and other marine mammals, and stop within a distance appropriate to the circumstances and conditions.

(3) Speed reductions (adjustments) are required when a whale is sighted by a vessel or when the vessel is within 9 km (5 NM) of a reported new sighting less than one week old.

(4) Ships transiting in the Cape Cod Bay and Great South Channel critical habitats shall obtain information on recent whale sightings in the vicinity of the critical habitat. Any vessel operating in the vicinity of a North Atlantic right whale shall consider additional speed reductions as per Rule 6 of International Navigational Rules.

§ 216.245 Requirements for monitoring and reporting.

(a) The Navy is required to cooperate with the NMFS, and any other Federal, state or local agency monitoring the impacts of the activity on marine mammals.

(b) As outlined in the AFAST Stranding Communication Plan, the Navy must notify NMFS immediately (or as soon as clearance procedures allow) if the specified activity identified in § 216.240(b) is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified in § 216.240(c).

(c) The Navy must conduct all monitoring and/or research required under the Letter of Authorization including abiding by the letter of the AFAST Monitoring Plan, which requires the Navy to implement, at a minimum, the monitoring activities summarized in Table 1 to subpart V to this part (and described in more detail in the AFAST Monitoring Plan, which may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>).

(d) Report on Monitoring required in sub-paragraph (c) of this section—The Navy shall submit a report annually on September 1 describing the implementation and results (through June 1 of the same year) of the monitoring required in paragraph c, above. Standard marine species sighting forms shall be used by the Navy to standardize data collection and data collection methods will be standardized across ranges to allow for comparison in different geographic locations.

(e) IEER exercises—A yearly report detailing the number of exercises along with the hours of associated marine mammal survey and associated marine mammal sightings, number of times employment was delayed by marine mammal sightings, and the number of total detonated charges and self-scuttled charges shall be submitted to NMFS.

(f) MFAS/HFAS exercises—The Navy shall submit an After Action Report to the Office of Protected Resources, NMFS, within 120 days of the completion of any Major Training Exercise (SEASWITI, IAC, COMPTUEX, JTFEX, but not Group Sails). For other ASW and MIW exercises, the Navy shall

submit a yearly summary report. These reports shall, at a minimum, include the following information:

(1) The estimated number of hours of sonar operation, subdivided by source type;

(2) The total number of hours of observation effort (including observation time when sonar was not operating), if obtainable;

(3) All marine mammal sightings (at any distance—not just within a particular distance) to include, when possible, and if not classified:

(i) Species.

(ii) Number of animals sighted.

(iii) Geographic location of marine mammal sighting.

(iv) Distance of animal from any ship with observers.

(v) Whether animal is fore, aft, port, or starboard.

(vi) Direction of animal movement in relation to boat (towards, away, parallel).

(vii) Any observed behaviors of marine mammals.

(4) The status of any sonar sources (what sources were in use) and whether or not they were powered down or shut down as a result of the marine mammal observation.

(5) The platform that the marine mammals were initially sighted from.

(g) AFAST Comprehensive Report—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during all training for which individual reports are required in § 216.145 (d–f). This report shall be submitted at the end of the fourth year of the rule (November 2012), covering activities that have occurred through June 1, 2012.

(h) The Navy shall respond to NMFS comments on the draft comprehensive report if NMFS provides the Navy with comments on the draft report within 3 months of receipt. The report shall be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

(i) Comprehensive National Sonar Report—By June, 2014, the Navy shall submit a draft National Report that analyzes, compares, and summarizes the active sonar data gathered from the watchstanders and pursuant to the implementation of the Monitoring Plans for AFAST, the Hawaii Range Complex (HRC), the Southern California (SOCAL) Range Complex, the Marianas Range Complex, and the Northwest Training Range.

(j) The Navy shall respond to NMFS comments on the draft comprehensive report if NMFS provides the Navy with

comments on the draft report within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

§ 216.246 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to these regulations, the Navy conducting the activity identified in § 216.240(a) must apply for and obtain either an initial Letter of Authorization in accordance with §§ 216.247 or a renewal under § 216.248.

§ 216.247 Letter of Authorization.

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart, but must be renewed annually subject to annual renewal conditions in § 216.248.

(b) Each Letter of Authorization shall set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (i.e., mitigation); and

(3) Requirements for mitigation, monitoring and reporting.

(c) Issuance and renewal of the Letter of Authorization shall be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

§ 216.248 Renewal of Letters of Authorization and adaptive management.

(a) A Letter of Authorization issued under § 216.106 and § 216.147 for the activity identified in § 216.140(c) will be renewed annually upon:

(1) Notification to NMFS that the activity described in the application submitted under § 216.246 will be undertaken and that there will not be a substantial modification to the

described work, mitigation or monitoring undertaken during the upcoming 12 months;

(2) Receipt of the monitoring reports and notifications within the indicated timeframes required under § 216.245(b–j); and

(3) A determination by the NMFS that the mitigation, monitoring and reporting measures required under § 216.244 and the Letter of Authorization issued under §§ 216.106 and 216.247, were undertaken and will be undertaken during the upcoming annual period of validity of a renewed Letter of Authorization.

(b) Adaptive Management—Based on new information, NMFS may modify or augment the existing mitigation measures if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable. Similarly, NMFS may coordinate with the Navy to modify or augment the existing monitoring requirements if the new data suggest that the addition of a particular measure would likely fill in a specifically important data gap. The following are some possible sources of new and applicable data:

(1) Results from the Navy's monitoring from the previous year (either from the AFAST Study Area or other locations);

(2) Results from specific stranding investigations (either from the AFAST Study Area or other locations, and involving coincident MFAS/HFAS training or not involving coincident use) or NMFS' long term prospective stranding investigation discussed in the preamble to this proposed rule;

(3) Results from general marine mammal and sound research (funded by the Navy or otherwise).

(c) If a request for a renewal of a Letter of Authorization issued under §§ 216.106 and 216.248 indicates that a substantial modification to the described work, mitigation or monitoring undertaken during the

upcoming season will occur, or if NMFS utilizes the adaptive management mechanism addressed in (b) above to modify or augment the mitigation or monitoring measures, the NMFS shall provide the public a period of 30 days for review and comment on the request. Review and comment on renewals of Letters of Authorization would be restricted to:

(1) New cited information and data indicating that the determinations made in this document are in need of reconsideration, and

(2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current Letter of Authorization.

(c) A notice of issuance or denial of a renewal of a Letter of Authorization will be published in the **Federal Register**.

§ 216.249 Modifications to Letters of Authorization.

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the Letter of Authorization by NMFS, issued pursuant to §§ 216.106 and 216.247 and subject to the provisions of this subpart, shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of a Letter of Authorization under § 216.248, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 216.240(b), a Letter of Authorization issued pursuant to §§ 216.106 and 216.247 may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

BILLING CODE 3510–22–P

STUDY 1 and 3 (exposures and behavioral responses)	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys	Award monitoring contract, develop	SEASWIT1, shallow COMPTUEX, or	SEASWIT1, shallow COMPTUEX, or	SEASWIT1, shallow COMPTUEX, or	SEASWIT1, shallow COMPTUEX, or	SEASWIT1, shallow COMPTUEX, or
Marine Mammal Observers	Opportunistic as staff and SOP developed	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours	SEASWIT1 or ULT - 60 hours
Vessel surveys (study 3 only)	Award monitoring contract, develop SOP	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours	SEASWIT1, shallow COMPTUEX, or ULT- 100 hours
STUDY 2 (geographic redistribution)	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys before and after training events	SEASWIT1, shallow COMPTUEX, or ULT- 24 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours
Onslow Bay and Jacksonville Aerial surveys	288 hours	288 hours	576 hours	576 hours	576 hours	576 hours
Onslow Bay and Jacksonville Shipboard surveys	288 hours	288 hours	576 hours	576 hours	576 hours	576 hours
Passive Acoustics	Award monitoring contract 1 HARP in place and use of pop-up buoys for exercise monitoring Begin recording	Installation of remaining 3 HARPS (4 total) and use of pop-up buoys for exercise monitoring Begin recording and data analysis	Continue recording and data analysis	Continue recording and data analysis	Continue recording and data analysis	Continue recording and data analysis
STUDY 4 (mitigation effectiveness)	FY08	FY09	FY10	FY11	FY12	FY13
Marine mammal observers/lookout comparison	SEASWIT1 or ULT- 24 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours	SEASWIT1 or ULT- 40 hours
Aerial surveys before and after training events	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours	SEASWIT1, shallow COMPTUEX, or ULT- 40 hours

Table 1 of Subpart V. Summary of monitoring effort proposed in draft Monitoring Plan for AFAST

Figure 1 to Subpart V – [Reserved]





Federal Register

**Tuesday,
October 14, 2008**

Part III

Department of Commerce

**National Oceanic and Atmospheric
Administration**

**50 CFR Part 216
Taking and Importing Marine Mammals;
U.S. Navy Training in the Southern
California Range Complex; Proposed Rule**

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****50 CFR Part 216**

[Docket No. 0808061069–81171–01]

RIN 0648–AW91

Taking and Importing Marine Mammals; U.S. Navy Training in the Southern California Range Complex

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS has received a request from the U.S. Navy (Navy) for authorization to take marine mammals incidental to training activities conducted in the Southern California Range Complex (SOCAL), which extends south and southwest off the southern California coast, for the period of January 2009 through January 2014. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is proposing regulations to govern that take and requesting information, suggestions, and comments on these proposed regulations.

DATES: Comments and information must be received no later than November 13, 2008.

ADDRESSES: You may submit comments, identified by 0648–AW91, by any one of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal, <http://www.regulations.gov>.

- Hand delivery or mailing of paper, disk, or CD–ROM comments should be addressed to Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225.

Instructions: All comments received are a part of the public record and will generally be posted to <http://www.regulations.gov> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments. Attachments to electronic comments will be accepted in Microsoft

Word, Excel, WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Jolie Harrison, Office of Protected Resources, NMFS, (301) 713–2289, ext. 166.

SUPPLEMENTARY INFORMATION:**Availability**

A copy of the Navy's application may be obtained by writing to the address specified above (see **ADDRESSES**), telephoning the contact listed above (see **FOR FURTHER INFORMATION CONTACT**), or visiting the internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. The Navy's Draft Environmental Impact Statement (DEIS) for SOCAL was published on April 4, 2008, and may be viewed at <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS is participating in the development of the Navy's EIS as a cooperating agency under NEPA.

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) during periods of not more than five consecutive years each if certain findings are made and regulations are issued or, if the taking is limited to harassment, notice of a proposed authorization is provided to the public for review.

Authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such taking are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as:

An impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.

The National Defense Authorization Act of 2004 (NDAA) (Pub. L. 108–136) modified the MMPA by removing the "small numbers" and "specified geographical region" limitations and amended the definition of "harassment" as it applies to a "military readiness activity" to read as follows (Section 3(18)(B) of the MMPA):

(i) any act that injures or has the significant potential to injure a marine mammal or

marine mammal stock in the wild [Level A Harassment]; or

(ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Summary of Request

On April 1, 2008, NMFS received an application from the Navy requesting authorization for the take of individuals of 37 species of marine mammals incidental to upcoming Navy training activities, maintenance, and research, development, testing, and evaluation (RDT&E) activities to be conducted within SOCAL, which extends southwest approximately 600 nm in the general shape of a 200-nm wide rectangle (see the Navy's application), over the course of 5 years. These training activities are military readiness activities under the provisions of the NDAA. The Navy states, and NMFS concurs, that these military readiness activities may incidentally take marine mammals present within SOCAL by exposing them to sound from mid-frequency or high frequency active sonar (MFAS/HFAS) or underwater detonations. The Navy requests authorization to take individuals of 37 species of marine mammals by Level B Harassment. Further, though they do not anticipate it to occur, the Navy requests authorization to take, by injury or mortality, up to 10 beaked whales over the course of the 5-yr regulations.

Background of Request

The Navy's mission is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. Title 10, U.S. Code (U.S.C.) 5062 directs the Chief of Naval Operations to train all naval forces for combat. The Chief of Naval Operations meets that direction, in part, by conducting at-sea training exercises and ensuring naval forces have access to ranges, operating areas (OPAREAs) and airspace where they can develop and maintain skills for wartime missions and conduct research, development, testing, and evaluation (RDT&E) of naval weapons systems.

The Navy proposes to implement actions within the SOCAL Range Complex to:

- Increase training and RDT&E operations from current levels as necessary to support the Navy-wide training plan, known as the Fleet Readiness Training Plan (FRTTP);

- Accommodate mission requirements associated with force structure changes and introduction of new weapons and systems to the Fleet; and

- Implement enhanced range complex capabilities.

The Proposed Action would result in selectively focused but critical increases in training, and range enhancements (including the establishment and use of a shallow-water minefield and construction of a shallow-water training range) to address testing and training resource shortfalls, as necessary to ensure the SOCAL Range Complex supports Navy and Marine Corps training and readiness objectives. The proposed action would result in approximately a 12-percent increase in the amount of MFAS/HFAS currently used.

Overview of SOCAL Range Complex

The U.S. Navy has been training and operating in the area now defined as the SOCAL Range Complex for over 70 years. The SOCAL Range Complex has three primary components: Ocean Operating Areas (SOCAL OPAREAs), Special Use Airspace (SUA), and San Clemente Island (SCI). The Range Complex is situated between Dana Point and San Diego, and extends more than 600 nautical miles (nm) (1,111 kilometers (km)) southwest into the Pacific Ocean (See the Navy's application). The components of the SOCAL Range Complex encompass 120,000 square nm (nm²) (411,600 square km (km²)) of sea space, 113,000 nm² (387,500 km²) of SUA, and over 42 nm² (144 km²) of land (SCI). To facilitate range management and scheduling, the SOCAL Range Complex is divided into numerous sub-component ranges and training areas, which are described below.

SOCAL OPAREAS

The ocean areas of the SOCAL Range Complex include surface and subsurface OPAREAs extending generally southwest from the coastline of southern California between Dana Point and San Diego for approximately 600 nm into international waters to the west of Baja California, Mexico. Most of the SOCAL OPAREAS are located under the Warning Area 291 Airspace mentioned below. Several SOCAL OPAREAs do not lie under W-291. These OPAREAS are used for ocean surface and subsurface training. Military aviation activities may be conducted in airspace that is not designated as SUA, however, these aviation activities do not include use of live or inert ordnance.

Special Use Airspace (SUA)

The SOCAL Range Complex includes military airspace designated as Warning Area 291 (W-291). W-291 comprises 113,000 nm² (209,276 km²) of SUA that generally overlies the SOCAL OPAREAs and SCI, extending to the southwest from approximately 12 nm (22 km) off the coast to approximately 600 nm (1,111 km). W-291 is the largest component of SUA in the Navy's range inventory.

San Clemente Island (SCI)

SCI, a component part of the SOCAL Range Complex, is comprised of existing land ranges and training areas that are integral to training of Pacific Fleet air, surface, and subsurface units; First Marine Expeditionary Force (I MEF) units; Naval Special Warfare (NSW) units; and selected formal schools. SCI provides instrumented ranges, operating areas, and associated facilities to conduct and evaluate a wide range of exercises within the scope of naval warfare. SCI also provides ranges and services for RDT&E activities. Over 20 Navy and Marine Corps commands conduct training and testing activities on SCI. Due to its unique capabilities to support multiple training operations, SCI training activities encompass every Navy primary mission area (PMAR), and SCI provides critical training resources for Expeditionary Strike Group (ESG), Carrier Strike Group (CSG), and Marine Expeditionary Unit (MEU) certification exercises.

SCI provides an extensive suite of range capabilities for tactical training. SCI includes a Shore Bombardment Area (SHOBA), landing beaches, several live-fire training areas and ranges (TARs) for small arms, maneuver areas, and other dedicated ranges for the conduct of training in all Primary Mission Areas (PMARs). SCI includes extensive instrumentation, and provides robust opposing force simulation and targets for use in land, sea-based, and air live-fire training. SCI also contains an airfield and other infrastructure for training and logistical support.

Overlap With Point Mugu Sea Range for Certain Anti-Submarine Warfare Training (ASW)

The Point Mugu Sea Range is a Navy ocean range area north of and generally adjacent to the SOCAL Range Complex. ASW training conducted in the course of major exercises occurs across the boundaries of the SOCAL Range Complex into the Point Mugu Sea Range. These cross-boundary events are addressed in this authorization request.

Description of Specified Activities

As mentioned above, the Navy has requested MMPA authorization to take marine mammals incidental to training activities in the SOCAL Range Complex that would result in the generation of sound or pressure waves in the water at or above levels that NMFS has determined will likely result in take (see Acoustic Take Criteria Section), either through the use of MFAS/HFAS or the detonation of explosives in the water. These activities are discussed below.

Activities Utilizing Active Sonar Sources

For the SOCAL Range Complex, the training activities that utilize active tactical sonar sources fall into the category of Anti-submarine Warfare (ASW) exercises. This section includes a description of ASW, the active acoustic devices used in ASW exercises, as well as the exercise types in which these acoustic sources are used.

ASW Training and Active Sonar

ASW involves helicopter and sea control aircraft, ships, and submarines, operating alone or in combination, in operations to locate, track, and neutralize submarines. Controlling the undersea battlespace is a unique naval capability and a vital aspect of sea control. Undersea battlespace dominance requires proficiency in ASW. Every deploying strike group and individual ASW-capable combatant must possess this capability.

Various types of active and passive sonars are used by the Navy to determine water depth, locate mines, and identify, track, and target submarines. Passive sonar "listens" for sound waves by using underwater microphones, called hydrophones, which receive, amplify and process underwater sounds. No sound is introduced into the water when using passive sonar. Passive sonar can indicate the presence, character and movement of submarines. Passive sonar, alternatively, provides only a bearing (direction) to a sound-emitting source; it does not provide an accurate range (distance) to the source. Active sonar is needed to locate objects because active sonar provides both bearing and range to the detected contact (such as an enemy submarine).

Active sonar transmits pulses of sound that travel through the water, reflect off objects and return to a receiver. By knowing the speed of sound in water and the time taken for the sound wave to travel to the object and back, active sonar systems can quickly calculate direction and distance from the sonar platform to the underwater

object. There are three types of active sonar: Low-frequency, mid-frequency, and high-frequency.

Low-frequency sonar operates below 1 kilohertz (kHz) and is designed to detect extremely quiet diesel-electric submarines at ranges far beyond the capabilities of mid-frequency active sonars. There are only two ships in use by the U.S. Navy that are equipped with low-frequency sonar; both are ocean surveillance vessels operated by Military Sealift Command. Low-frequency active sonar is not presently utilized in the SOCAL Range Complex, and use of low-frequency active sonar is not contemplated in the Proposed Action.

High-frequency active sonar (HFAS), operates at frequencies greater than 10 kilohertz (kHz). At higher acoustic frequencies, sound rapidly dissipates in the ocean environment, resulting in short detection ranges, typically less than five nm. High-frequency sonar is used primarily for determining water

depth, hunting mines and guiding torpedoes.

Mid-frequency active sonar (MFAS) operates between 1 and 10 kHz, with detection ranges up to 10 nautical miles (nm). Because of this detection ranging capability, MFAS is the Navy's primary tool for conducting ASW. Many ASW experiments and exercises have demonstrated that this improved capability for long range detection of adversary submarines before they are able to conduct an attack is essential to U.S. ship survivability. Today, ASW is the Navy's #1 war-fighting priority. Navies across the world utilize modern, quiet, diesel-electric submarines which pose the primary threat to the U.S. Navy's ability to perform a number of critically necessary missions. Extensive training is necessary of sailors, ASW-capable units, and strike groups are to gain proficiency in using MFAS. If a strike group does not demonstrate MFAS proficiency, it cannot be certified as combat ready.

Acoustic Sources Used for ASW Exercises in SOCAL

Modern sonar technology has developed a multitude of sonar sensor and processing systems. In concept, the simplest active sonars emit omnidirectional pulses ("pings") and time the arrival of the reflected echoes from the target object to determine range. More sophisticated active sonar emits an omnidirectional ping and then rapidly scans a steered receiving beam to provide directional, as well as range, information. More advanced active sonars transmit multiple preformed beams, listening to echoes from several directions simultaneously and providing efficient detection of both direction and range. The types of active sonar sources employed during ASW active sonar training exercises in the SOCAL Range Complex are identified in Table 1.

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Sonar Sources	Freq- uency (kHz)	Source Level (dB) re 1 μ Pa @ 1 m	Emission Spacing (m)*	Vertical Direct- ivity	Horizon- tal Direct- ivity	Associated Platform	System Description
AN/SQS-53C	3.5	235	154	Omni	240° forward-looking	Cruiser (CG) and Destroyer (DDG) hull mounted sonar	ASW search, detection, & localization (approximately 2 pings per minute)
AN/SQS-53C Kingfisher Mode	3.5	236	46	20° width 42° D/E	120° forward	Same as above	Mine object detection (approximately 2 pings per minute)
AN/SQS-56C	7.5	225	129	13°	30°	Frigate (FFG) hullmounted sonar	ASW search, detection, & localization (approximately 2 pings per minute)
AN/AQS-22 (or AN/AQS-13F**)	4.1	217	15	Omni	Omni	Helicopter (SH-60, MH-60R) dipping sonar	ASW sonar lowered from hovering helicopter (approximately 10 pings/dip, 30 seconds between pings)
AN/BQQ-10	Classified (MF)	Classified	n/a	Omni	Omni	Submarine (SSN) hullmounted sonar	ASW search and attack (approximately two pings per hour when in use)
AN/BQQ-15	Classified (MF)	Classified				Submarine (SSN) hullmounted sonar	Submarine navigational sonar
AN/SSQ-62 DICASS (sonobuoy, tonal)	8	201	450	Omni	Omni	Helicopter and maritime patrol aircraft (P3 and P8 MPA) dropped sonobuoy	Remotely commanded expendable sonar-equipped buoy (approximately 12 pings per use, 30 secs between pings)
MK-48 torpedo sonar	Classified (>10)	Classified	144	Omni	Omni	Submarine (SSN) launched torpedo	Recoverable and non-explosive exercise torpedo; sonar is active approximately 15 min per torpedo run
***MK-46 or 54 torpedo sonar	Classified (HF)	Classified				Surface ship and aircraft fired exercise torpedo (lightweight)	Recoverable and non-explosive exercise torpedo
AN/SSQ-110A (IEER)	Classified (impulsive, broadband)	Classified	n/a	Omni	Omni	MPA deployed	ASW system consists of explosive acoustic source buoy (contains two 4.1 lb charges) and expendable passive receiver sonobuoy
AN/SLQ-25A (NIXIE)	Classified (MF)	Classified				DDG, CG, FFG and certain other surface ship towed array (torpedo countermeasure)	Towed countermeasure to avert localization and torpedo attacks (approximately 20 mins per use)

Table 1. Parameters used for modeling the six sonar sources. Many of the actual parameters and capabilities of these sonars are classified. Parameters used for modeling were derived to be as representative as possible. When, however, there were a wide range of potential modeling values, a nominal parameter likely to result in the most impact was used so that the model would err towards overestimation.

*Spacing means distance between pings at the nominal speed

**AN/AQS-22 used as surrogate for AN/AQS-13F, AQS-22 source level is higher than AQS-13F

*** MK-48 used as surrogate for MK-46/54 in modeling; MK-48 source level is higher than MK-46

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ASW sonar systems are deployed from certain classes of surface ships, submarines, helicopters, and fixed wing maritime patrol aircraft (Table 1). The surface ships used are typically equipped with hull-mounted sonars (active and passive) and towed-array passive sonar for the detection of submarines. Helicopters equipped with dipping sonar or sonobuoys are utilized to locate submarines or submarine targets within the training area. In addition, fixed wing marine patrol aircraft (MPA) are used to deploy both active and passive sonobuoys to assist in locating and tracking submarines during the duration of the exercise. Submarines are equipped with hull-mounted sonars sometimes used to locate and prosecute other submarines and/or surface ships during the exercise. The platforms used in ASW exercises are identified below.

Surface Ship Sonars—A variety of surface ships participate in testing and training events. Some ships (e.g., aircraft carriers, amphibious assault ships) do not have any onboard active sonar systems, other than fathometers. Others, like guided missile cruisers, are equipped with active as well as passive tactical sonars for mine avoidance and submarine detection and tracking. For purposes of the analysis, the SQS-53 was modeled as having a nominal source level of 235 decibels (dB) re 1 μ Pa @ 1 m, and the SQS-56 was modeled as having a nominal source level of 225 decibels (dB) re 1 μ Pa @ 1 m. Sonar ping transmission durations were modeled as lasting 1 second per ping and omni-directional, which is a conservative assumption that will overestimate potential effects. Actual ping durations will be less than 1 second. The SQS-53 hull-mounted sonar transmits at center frequencies of 2.6 kHz and 3.5 kHz. The SQS-56 sonar transmits at a center frequency of 7.5 kHz. Details concerning the tactical use of specific frequencies and the repetition rate for the sonar pings is classified but was modeled based on the required tactical training setting.

Hull-mounted active sonars occasionally operate in a mode called “Kingfisher,” which is designed to better detect smaller objects. The Kingfisher mode uses the same source level and frequency as normal search modes, however, it uses a different waveform (designed for small objects), a shorter pulse length (< 1 sec), a higher pulse repetition rate (due to the short ranges), and the ping is not omnidirectional, but directed forward.

Submarine Sonars—Submarine active and passive sonars are used to detect

and target enemy submarines and surface ships. Because submarine MF active sonar (AN/BQQ-10) use is very rare and in those rare instances, very brief (only approximately 2 pings per hour), it is extremely unlikely that use of active sonar by submarines would have any measurable effect on marine mammals. However, submarine sonar was included in the modeling for estimating exposures of marine mammals to sonar sounds. Estimates of exposure are also included for the HF AN/BQQ-15 which is used for navigation.

Aircraft Sonar Systems—Aircraft sonar systems that would operate in the SOCAL Range Complex include DICASS sonobuoys (AN/SSQ-62; source level of 201 dB) and dipping sonar (AN/AQS-22). Sonobuoys may be deployed by maritime patrol aircraft or helicopters; dipping sonars are used by carrier-based helicopters. A sonobuoy is an expendable device used by aircraft for the detection of underwater acoustic energy and for conducting vertical water column temperature measurements. Most sonobuoys are passive, but some can generate active acoustic signals, as well as listen passively. Dipping sonar is an active or passive sonar device lowered on cable by helicopters to detect or maintain contact with underwater targets. During ASW training, these systems active modes are only used briefly for localization of contacts and are not used in primary search capacity. Because active mode dipping sonar use is very brief and has a lower normal source level than hull-mounted active sonars, it is extremely unlikely its use would have any effect on marine mammals. However, the AN/AQS-22 dipping sonar was modeled based on estimated use during major training exercises within the SOCAL Range Complex.

Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems—EER/IEER are airborne ASW systems used in conducting large area searches for submarines. These systems are made up of airborne avionics, ASW acoustic processing and sonobuoy types that are deployed in pairs. The IEER System’s active sonobuoy component, the AN/SSQ-110A Sonobuoy, would generate a sonar “ping” (actually small explosive detonation) and the passive AN/SSQ-101A ADAR Sonobuoy would “listen” for the return echo of the sonar ping that has been bounced off the surface of a submarine. These sonobuoys are designed to provide underwater acoustic data necessary for naval aircrews to quickly and accurately detect submerged submarines. The sonobuoy pairs are dropped from a

fixed-wing aircraft into the ocean in a predetermined pattern with a few buoys covering a very large area. The AN/SSQ-110A Sonobuoy Series is an expendable and commandable sonobuoy. Upon command from the aircraft, the bottom payload is released to sink to a designated operating depth. A second command is required from the aircraft to cause the second payload to release and detonate generating a “ping”. There is only one detonation in the pattern of buoys at a time. The AN/SSQ-110A is listed in this table because it functions like a sonar ping, however, the source creates an explosive detonation and its effects are considered in the underwater explosive section.

Torpedoes—Torpedoes are the primary ASW weapon used by surface ships, aircraft, and submarines. The guidance systems of these weapons can be autonomous or electronically controlled from the launching platform through an attached wire. The autonomous guidance systems are acoustically based. They operate either passively, exploiting the emitted sound energy by the target, or actively, by reflecting a sonar signal off the target and using the received echoes for guidance. The MK-48 torpedo was modeled for active sonar transmissions during specified training operations within the SOCAL Range Complex. The MK-48 sonar with a higher source level was also conservatively used to account for MK-46 torpedo exercises.

Other Acoustic Sources—The Navy also utilizes the sources listed below in ASW exercises. However, based on operational characteristics (such as frequency and source level), the Navy determined that use of the following acoustic sources would not likely result in the take of marine mammals:

- **Acoustic Device Countermeasures (ADC)**—Several types of acoustic counter measure devices could be deployed during Fleet training exercises, including the free-floating submarine launched Acoustic Device Countermeasure (MK-1, MK-2, MK-3, MK-4), the free-floating submarine launched Noise Acoustic Emitter (NAE), and the surface ship towed AN/SLQ-25A (NIXIE). Countermeasure devices are submarine simulators and act as decoys to avert localization and torpedo attacks.

- **Training Targets**—ASW training targets consisting of MK-30 and/or MK-39 EMATT are used to simulate opposition submarines. They are equipped with one or a combination of the following devices: (1) Acoustic projectors emanating sounds to simulate submarine acoustic signatures; (2) echo repeaters to simulate the characteristics

of the echo of a particular sonar signal reflected from a specific type of submarine; and (3) magnetic sources to trigger magnetic detectors.

- **Range Sources.** Range pingers are active acoustic devices that allow each of the in-water platforms on the range (e.g., ships, submarines, target simulators, and exercise torpedoes) to be tracked by the instrumented range hydrophones on the Southern California ASW Range (SOAR) west of San Clemente Island. In addition to passively tracking the pinger signal from each range participant, the range transducer nodes also are capable of transmitting acoustic signals for a limited set of functions. These functions include submarine warning signals, acoustic commands to submarine target simulators (acoustic command link), and occasional voice or data communications (received by participating ships and submarines on range).

Types of ASW Exercises in the SOCAL

The Navy's ASW training plan, including the use of active sonar in at-sea training scenarios, includes multiple levels of training. Independent Unit-level ASW training (such as TRACKEX and TORPEX exercises) addresses basic skills such as detection and classification of contacts, distinguishing discrete acoustic signatures including those of ships, submarines, and marine life, and identifying the characteristics, functions, and effects of controlled jamming and evasion devices.

The Navy must execute training involving ships, aircraft, submarines, and Marine Corps forces operating in multiple dimensions (at sea, undersea, in the air, and on land) in order to ensure the readiness of naval forces. Unit training proceeds on a continuum, ranging from events involving a small number of ships, submarines, or aircraft engaged in training tailored to specific tasks, to large-scale pre-deployment or readiness exercises involving Strike Groups. Exercises involving an entire Strike Group are referred to as major range events (JTFEX and COMPTUEX). Smaller, integrated unit-level exercises are complex events (SHAREM, IAC2, or sustainment exercise), but of lesser scope than major range events, which pursue tailored training objectives for components of a Strike Group. It is useful to view larger exercises as being composed of individual training events conducted in a coordinated fashion. For example, the ASW portions of a major range event might include multiple TRACKEX and TORPEX events, conducted simultaneously with aviation or amphibious training. Table 2, at the

end of this section, summarizes the exercise types (both sonar and explosive) and they are further described below. Note that the names and exact composition of these exercises may change, however, the basic components are described here and the total hours of sonar sound source and explosive use will not exceed those described in this document.

Antisubmarine Warfare Tracking Exercise (TRACKEX)

A TRACKEX, which is an independent unit-level exercise, tests the Naval Strike Group's (NSG) ability to locate and track an unknown or hostile submarine over a predetermined time. This operation tests the NSG's ability to coordinate the positioning of assets including surface, air, and subsurface, and the effective communication and turnover of responsibility for maintaining coverage of the unknown submarine.

The TRACKEX-surface involves a surface ship employing hull mounted and/or towed array sonar against a target which may be an Expendable Mobile Anti-submarine Warfare Training Target (EMATT) or live submarine. The target may be either non-evading and assigned to a specified track or fully evasive depending on the state of training of the ship and crew. Passive and active sonar may be employed depending on the type of threat submarine, the tactical situation, and water conditions that may affect sonar effectiveness. Active sonar transmits at varying power levels, pulse types, and intervals, while passive sonar listens for noise emitted by the threat submarine. Passive sonar is typically employed first for tactical reasons, followed by active sonar to determine an exact target location; however, active sonar may be employed during the initial search phase against an extremely quiet submarine or in situations where the water conditions do not support acceptable passive reception. There is no ordnance expended in this exercise. An ASW TRACKEX-Surface usually lasts two to four hours.

This exercise may involve a single ship, or may be undertaken in the context of a coordinated larger exercise involving multiple aircraft and/or ships, including a major range event.

The Navy also conducts Submarine TRACKEX exercises. However, during this event, passive sonar is used almost exclusively; active sonar use is tactically proscribed because it would reveal the tracking submarine's presence to the target submarine.

Torpedo Exercise (TORPEX)

Anti-submarine Warfare Torpedo Exercises (ASW TORPEX) operations, which are independent unit-level exercises, train crews in tracking and attack of submerged targets, firing one or two exercise torpedoes (EXTORPs) or recoverable exercise torpedoes (REXTORPs). TORPEX targets used in the Offshore Areas include live submarines, MK 48 torpedoes, MK-30 ASW training targets, and MK-39 Expendable Mobile ASW Training Targets (EMATT). The target may be non-evading while operating on a specified track, or it may be fully evasive, depending on the training requirements of the operation.

The ASW TORPEX-Surface involves a surface ship using hull-mounted and towed sonar arrays to search for, detect, classify, localize, and track a simulated threat submarine. Submarines periodically conduct TORPEXs within the SOCAL Range Complex. Typical duration of a submarine TORPEX exercise is 10 hours, while air and surface ASW platform TORPEX operations are considerably shorter.

Ship ASW Readiness and Evaluation Measuring (SHAREM)

SHAREM is a Chief of Naval Operations (CNO) chartered program with the overall objective to collect and analyze high-quality data to quantitatively "assess" surface ship ASW readiness and effectiveness. The SHAREM is an integrated unit-level event and will typically involve multiple ships, submarines, and aircraft in several coordinated events over a period of a week or less. A SHAREM may take place once per year in SOCAL.

Sustainment Exercise

Included in the FRTP is a requirement to conduct post-deployment sustainment, training, and maintenance. The sustainment exercise, which is an integrated unit-level exercise, ensures that the components of a Strike Group maintain an acceptable level of readiness after returning from deployment. A sustainment exercise is an exercise designed to challenge the strike group in all warfare areas. This exercise is similar to a COMPTUEX but of shorter duration. One to two sustainment exercises may occur each year in SOCAL.

Integrated ASW Course Phase II (IAC2)

IAC2 exercises are combined aircraft and surface ship events. The IAC2 consists of two 12-hour events conducted primarily on SOAR over a 2-3 day period. SOAR is an undersea warfare range providing instrumented

three dimensional tracking over a 670 sq nm area within the large Southern California Offshore Range (SCORE). The typical participants include four helicopters, two P-3 aircraft, two adversary submarines, and two Mk 30 or Mk 39 targets. Frequently, IAC2s include the introduction of an off-range Mk 30 target. Four IAC2 exercises may occur per year.

Major Range Events

The Navy conducts large-scale exercises, or major ranges events, in the SOCAL Range Complex. These exercises are required for pre-deployment certification of naval formations. The composition of the force to be trained, and the nature of its mission upon deployment, determines the scope of the exercise. The Navy currently conducts up to eight major range events per year. Major range events bring together the component elements of a Strike Group or Strike Force (that is, all of the various ships, submarines, aircraft, and Marine Corps forces) to train in complex command, control, operational coordination, and logistics functions. Major range events require vast areas of sea space and airspace for the exercise of realistic training, as well as land areas for conducting land attack training events. The training space required for these events is a function of naval warfighting doctrine, which favors widely dispersed units capable of projecting forces and firepower at high speeds across distances of up to several hundred miles in a coordinated fashion, to concentrate on an objective. The three-dimensional space required to conduct a major range event involving a carrier strike group (CSG) or

expeditionary strike group (ESG) is a complicated polygon covering an area as large as 50,000 nm².

A major range event is comprised of several "unit level" range operations conducted by several units operating together while commanded and controlled by a single commander. These exercises typically employ an exercise scenario developed to train and evaluate the Strike Group/Force in required naval tactical tasks. In a major range event, most of the operations and activities being directed and coordinated by the Strike Group commander are identical in nature to the operations conducted in the course of individual, crew, and smaller-unit training events. In a major range event, however, these disparate training tasks are conducted in concert, rather than in isolation.

Major range events include:

- Composite Training Unit Exercise (COMPTUEX). The COMPTUEX is an Integration Phase, at-sea, major range event. For the CSG, this exercise integrates the aircraft carrier and carrier air wing with surface and submarine units in a challenging operational environment. For the ESG, this exercise integrates amphibious ships with their associated air wing, surface ships, submarines, and Marine Expeditionary Unit. Live-fire operations that may take place during COMPTUEX include long-range air strikes, Naval Surface Fire Support (NSFS), and surface-to-air, surface-to-surface, and air-to-surface missile exercises. The MEU also conducts realistic training based on anticipated operational requirements and to further develop the required coordination between Navy and Marine

Corps forces. Special Operations training may also be integrated with the exercise scenario. The COMPTUEX is typically 21 days in length. The exercise is conducted in accordance with a schedule of events, which may include two 1-day, scenario-driven, "mini" battle problems, culminating with a scenario-driven free play (as opposed to scripted) 3-day Final Battle Problem where the strike group is required to respond to dynamic maneuvers." COMPTUEX occurs three to four times per year.

- Joint Task Force Exercise (JTFEX). The JTFEX is a dynamic and complex major range event that is the culminating exercise in the Sustainment Phase training and certification event for the CSGs and ESGs. For an ESG, the exercise incorporates an Amphibious Ready Group (ARG) Certification Exercise (ARG CERT) for the amphibious ships and a Special Operations Capable Certification (SOCCERT) for the MEU. When schedules align, the JTFEX may be conducted concurrently for an ESG and CSG. JTFEX emphasizes mission planning and effective execution by all primary and support warfare commanders, including command and control, surveillance, intelligence, logistics support, and the integration of tactical fires. JTFEX is mostly a free-play (as opposed to scripted) event. JTFEX is normally 10 days long, not including a 3-day in-port Force Protection Exercise, and is the final at-sea exercise for the CSG or ESG prior to deployment. JTFEX occurs three to four times per year.

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Exercise Type	Independent Unit-Level Exercises							Integrated / Coordinated / Major Exercises				
	S-S GUNEX / NSFS	A-S MISSILEX	A-S BOMBEX	SINKEX	ASW TRACKEX including IAC ¹	ASW TORPEX Including IAC ¹	EER/ IEER	IAC	Sus- tain- ment	SHAREM	JTFEX	COMP- TUEX
Sources/ Weapons/ Rounds	5" rounds	HELLFIRE Harpoon	MK82, MK83, MK84 bombs	Bombs, MK48 5" rounds	53C AQS-22 sonobuoys	53C, MK48, AQS22 sonobuoys	SSQ-110A	All sources possible	All sources possible	All sources possible	All sources possible	All sources possible
Length of Exercise	2.5 - 9 hrs	3 hrs	1 hr	16 hrs	2 hrs	2	6 hrs	2 days	>21 days	7 days	10 days	21 days
Detonations/ Rounds per exercise	6 to 11	3	MK82 - 9 MK83 - 5 MK84 - 2	5" - 120 MK82 - 2 MK83 - 1 MK48 - 1	N/A	N/A	36	N/A	N/A	N/A	N/A	N/A
Number Exercises per Year	402	50	40	2	53C – 1,600 buoys – 3,864 AQS22-2,453	53C - 28 buoys - 150 MK48 - 84 AQS22 - 112	3	2	1	2	4	4
Possible Areas Conducted	SOAR SHOBA W-291	LTR-1/2	W-291	W-291	SOAR W-291	SOAR	W-291	SOCAL	Primarily SOAR	SOCAL	SOCAL	SOCAL
Months of Year conducted	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round	Year Round

Table 2. Summary of Exercise Types with sonar or explosive use anticipate in take of marine mammals.

1. IAC activities are accounted for in ASW TRACKEX and ASW TORPEX

2. For ASW TRACKEX and ASW TORPEX: 53C number equates to annual hours of use; buoys number equates to annual number of sonobuoys used; AQS22 number equates to annual number of dipoles; MK48 number equates to annual number of MK48 or 46 torpedoes used.

Activities Utilizing Underwater Detonations

Underwater detonation activities can occur at various depths depending on the activity (sinking exercise [SINKEX] and mine neutralization), but may also include activities which may have detonations at or just below the surface (SINKEX, gunnery exercise [GUNEX], or missile exercise [MISSILEX]). When the weapons hit the target, except for live torpedo shot, there is no explosion in

the water, and so a "hit" is not modeled (i.e., the energy (either acoustic or pressure) from the hit is not expected to reach levels that would result in take of marine mammals). When a live weapon misses, it is modeled as exploding below the water surface at 1 ft (5-inch naval gunfire, 76-mm rounds), 2 meters (Maverick, Harpoon, MK-82, MK-83, MK-84), or 50 ft (MK-48 torpedo) as shown in Appendix A of the Navy's application, Table A-7 (the depth is

chosen to represent the worst case of the possible scenarios as related to potential marine mammals impacts). Exercises may utilize either live or inert ordnance of the types listed in Table 3. Additionally, successful hit rates are known to the Navy and are utilized in the effects modeling. Training events that involve explosives and underwater detonations occur throughout the year and are described below and summarized in Table 2.

	lbs	TTS		Injury		Mortality	Exclusion
		182 SEL	23 psi	205 SEL	13 psi-ms	31 psi-ms	Zone Used
5" Naval gunfire	9.5	260	273	18	43	23	548
76mm rounds	1.6	133	151	7	24	12	548
Maverick	78.5	1051	562	70	193	107	1852 (SINKEX), 1645 (MISSILEX)
Harpoon	448	1959	821	134	273	159	1852 (SINKEX), 1645 (MISSILEX)
MK-82	238	1854	800	127	264	154	1852 (SINKEX), 914 (BOMBEX)
MK-83	574	2898	1073	198	333	197	1852 (SINKEX), 914 (BOMBEX)
MK-84	990	3828	1301	260	379	228	1852 (SINKEX), 914 (BOMBEX)
MK-48	851	3514	1232	248	738	437	1852 (SINKEX), 914 (BOMBEX)
AN/SSQ-110A (IEER)	5	336	288	72	158	75	914

Table 3. Ordnance used in SOCAL Explosive Exercises for which take of marine mammals is anticipated
Table indicates range to indicated threshold and size of Navy exclusion zone used in mitigation.

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Sinking Exercise (SINKEX)

In a SINKEX, a specially prepared, deactivated vessel is deliberately sunk using multiple weapons systems. The exercise provides training to ship and aircraft crews in delivering both live and inert ordnance on a real target. These target vessels are empty, cleaned, and environmentally remediated ship hulk (i.e., a hulk that has been stripped of all hazardous materials and potential marine water contaminants in accordance with the requirements of 40 CFR 229.2 [Transport of target vessels]). A SINKEX target is towed to sea and set adrift at the SINKEX location. The duration of a SINKEX is unpredictable since it ends when the target sinks, sometimes immediately after the first weapon impact and sometimes only after multiple impacts by a variety of weapons. Typically, the exercise lasts for 4 to 8 hours over 1 to 2 days. SINKEXs occur only occasionally during SOCAL Range Complex exercises.

Some or all of the following weapons may be employed in a SINKEX:

- Three HARPOON surface-to-surface and air-to-surface missiles.
- Two to eight air-to-surface Maverick missiles.
- Two to four MK-82 General Purpose Bombs.
- Two Hellfire air-to-surface missiles.
- One SLAM-ER air-to-surface missile.

- Two-hundred and fifty rounds for a 5-inch gun.
- One MK-48 heavyweight submarine-launched torpedo.

Air-to-Surface Gunnery Exercise (A-S GUNEX)

Air-to-Surface GUNEX operations, which may be conducted in W291, are conducted by fixed or rotary-wing aircraft against stationary targets (Floating at-sea Target [FAST] and smoke buoy). Rotary-wing aircraft involved in this operation would include a single SH-60 using either 7.62-mm or .50-caliber door-mounted machine guns. A typical A-S GUNEX will last approximately one hour and involve the expenditure of approximately 400 rounds of 0.50-caliber or 7.62-mm ammunition. Due to the inert nature of the ammunition and the small size of the rounds, they are not considered to have an underwater detonation impact.

Surface-to-Surface Gunnery Exercise (S-S GUNEX)

Surface gunnery exercises (GUNEX) take place in the open ocean (W291 and SOAR) to provide gunnery practice for Navy and Coast Guard ship crews. This exercise may involve a single firing ship, or be undertaken in the context of a coordinated larger exercise involving multiple ships, including a major range event. GUNEX training operations conducted in the Offshore OPAREA involve stationary targets such as a MK-

42 FAST or a MK-58 marker (smoke) buoy. The gun systems employed against surface targets include the 5-inch, 76 millimeter (mm), 57-mm, 25-mm chain gun, 20-mm Close-in Weapon System (CIWS), and .50 caliber machine gun. Typical ordnance expenditure for a single GUNEX is 21-70 rounds of 5-inch, 76-mm, or 57-mm ammunition, and approximately 150 rounds of 25-mm or .50-caliber ammunition. Both live and inert training rounds are used. After impacting the water, the rounds and fragments sink to the bottom of the ocean. A GUNEX lasts up to 2.5 hours, depending on target services and weather conditions. The live 5-inch, 57-mm and 76-mm rounds are considered in the underwater detonation modeling.

Naval Surface Fire Support exercises (NSFS), in which crews train in naval gunnery against shore targets using the same ammunition as a GUNEX, are included with GUNEX both in Table 2 and further discussion (though separate mitigation is described in the Mitigation section). NSFS may be conducted in SOAR, MIR, or SHOBA.

Air-to-Surface Missile Exercise (A-S MISSILEX)

The air-to-surface missile exercise (MISSILEX [A-S]) consists of the attacking platform releasing a forward-fired, guided weapon at the designated towed target. The exercise involves locating the target, then designating the target, usually with a laser. MISSILEX (A-S) training that does not involve the

release of a live weapon can take place if the attacking platform is carrying a captive air training missile (CATM) simulating the weapon involved in the training. The CATM MISSILEX is identical to a live-fire exercise in every aspect except that a weapon is not released. The operation requires a laser-safe range as the target is designated just as in a live-fire exercise.

From 1 to 16 aircraft, carrying live, inert, or CATMs, or flying without ordnance (dry runs) are used during the exercise. At sea, seaborne powered targets (SEPTARs), Improved Surface Towed Targets (ISTTs), and decommissioned hulks are used as targets. MISSILEX (A-S) assets include helicopters and/or 1 to 16 fixed wing aircraft with air-to-surface missiles and anti-radiation missiles (electromagnetic radiation source seeking missiles). When a high-speed anti-radiation missile (HARM) is used, the exercise is called a HARMEX. Targets include SEPTARs, ISTTs, and excess ship hulks.

Surface-to-Surface Missile Exercise (S-S MISSILEX)

Surface-to-surface missile exercise (MISSILEX [S-S]) involves the attack of surface targets at sea by use of cruise missiles or other missile systems, usually by a single ship conducting training in the detection, classification, tracking and engagement of a surface target. Engagement is usually with Harpoon missiles or Standard missiles in the surface-to-surface mode. Targets could include virtual targets or the SEPTAR or ship deployed surface target. MISSILEX (S-S) training is routinely conducted on individual ships with embedded training devices.

A MISSILEX (S-S) could include 4 to 20 surface-to-surface missiles, SEPTARs, a weapons recovery boat, and a helicopter for environmental and photo evaluation. All missiles are equipped with instrumentation packages or a warhead. Surface-to-air missiles can also be used in a surface-to-surface mode. MISSILEX (S-S) activities are conducted within W-291. Each exercise typically lasts five hours. Future MISSILEX S-S could range from 4 to 35 hours.

S-S MISSILEX exercises only occur during SINKEX exercises, and the hours of S-S MISSILEX are included in the total hours of SINKEX indicated in Table 2.

Bombing Exercise (BOMBEX)

Fixed-wing aircraft conduct bombing exercise (BOMBEX [Sea]) operations against stationary targets (MK-42 FAST or MK-58 smoke buoy) at sea. An aircraft will clear the area, deploy a

smoke buoy or other floating target, and then set up a racetrack pattern, dropping on the target with each pass. A BOMBEX may involve either live or inert ordnance.

Mine Warfare (MIW)/ Mine Countermeasures (MCM)

MIW is the naval warfare area involving the detection, avoidance, and neutralization of mines to protect Navy ships and submarines, and offensive mine laying in naval operations. A naval mine is a self-contained explosive device placed in water to destroy ships or submarines. Naval mines are deposited and left in place until triggered by the approach of or a contact with an enemy ship, or are destroyed or removed. Naval mines can be laid by purpose-built minelayers, other ships, submarines, or airplanes. MIW training includes Mine Countermeasures (MCM) Exercises and Mine Laying Exercises (MINEX). MCM training is currently conducted on the Kingfisher Range and offshore areas in the Tanner and Cortes Banks. MCM training engages ships' crews in the use of sonar for mine detection and avoidance, and minefield navigation and reporting. The proposed extension of the SOAR is intended for use in such training. MINEX events involve aircraft dropping inert training shapes, and less frequently submarine mine laying. MINEX events are conducted on the MINEX Training Ranges in the Castle Rock, Eel Point, China Point, and Pyramid Head areas offshore of SCI.

Mine Neutralization operations involve the detection, identification, evaluation, rendering safe, and disposal of mines and unexploded ordnance (UXO) that constitutes a threat to ships or personnel. Mine neutralization training can be conducted by a variety of air, surface and sub-surface assets. Potential harassment would be from underwater detonation.

Tactics for neutralization of ground or bottom mines involve the diver placing a specific amount of explosives, which when detonated underwater at a specific distance from a mine results in neutralization of the mine. Floating, or moored, mines involve the diver placing a specific amount of explosives directly on the mine. Floating mines encountered by Fleet ships in open-ocean areas will be detonated at the surface. In support of an expeditionary assault, divers and Navy marine mammal assets deploy in very shallow water depths (10 to 40 feet) to locate mines and obstructions. Divers are transported to the mines by boat or helicopter. Inert dummy mines are used in the exercises. The total net explosive

weight used against each mine ranges from less than 1 pound to 20 pounds.

Various types of surveying equipment may be used during mine detection. Examples include the Canadian Route Survey System that hydrographically maps the ocean floor using multi-beam side scan sonar and the Bottom Object Inspection Vehicle used for object identification. These units can help in supporting mine detection prior to Special Warfare Operations (SPECWAROPS) and amphibious exercises.

All demolition activities are conducted in accordance with established Navy guidelines and procedures for disposal of explosives at sea. Before any explosive is detonated, divers are transported a safe distance away from the explosive.

Standard practices for tethered mines in the SOCAR Range Complex require ground mine explosive charges to be suspended 10 feet below the surface of the water.

Mine neutralization exercises would involve training using Organic Airborne Mine Countermeasures (OAMCM) systems employed by helicopters in simulated threat minefields with the goal of clearing a safe channel through the minefield for the passage of friendly ships. Once a mine shape is located, mine neutralization is simulated. Helicopters engaged in MCM training would be configured with one or more of the following systems:

- AN/AQS-20 Mine Hunting System: The AQS-20 is an active high resolution, side-looking, multibeam sonar system used for mine hunting of deeper mine threats along the ocean bottom. It is towed by a helicopter. A small diameter electromechanical cable is used to tow the rapidly-deployable system that provides real-time sonar images to operators in the helicopter.

- AN/AES-1 Airborne Laser Mine Detection System (ALMDS): ALMDS is a helicopter-mounted system that uses Light Detection and Ranging (LIDAR) blue-green laser technology to detect, classify, and localize floating and near-surface moored mines in shallow water.

- AN/ALQ-220 Organic Airborne Surface Influence Sweep (OASIS). OASIS is a helicopter deployed, towed-body, 10 ft long and 20 inches in diameter that is self-contained, allowing for the emulation of magnetic and acoustic signatures of the ships.

- Airborne Mine Neutralization System (AMNS): AMNS is a helicopter-deployed underwater vehicle that searches for, locates, and destroys mines. This vehicle is a self-propelled, unmanned, wire-guided munition with

homing capability that expends itself during the mine destruction process.

- AN/AWS-2 Rapid Airborne Mine Clearance System (RAMCIS): RAMCIS is a helicopter-borne weapon system that fires a 30mm projectile from a gun or cannon to neutralize surface and near-surface mines. RAMCIS uses LIDAR technology to detect mines.

Mine neutralization exercises also would involve shipboard MCM systems, including the Remote Minehunting System (RMS). The RMS is an unmanned, semi-submersible vehicle that tows a variable-depth sensor to detect, localize, classify and identify mines. The RMS includes a shipboard launch and recovery system.

Mine neutralization exercises also would involve submarine-deployed MCM systems, the Long-term Mine Reconnaissance System (LMRS). The LMRS employs a self-propelled underwater vehicle equipped with forward-looking search sonar and side-looking classification sonar.

Locations proposed for mine neutralization training are: Pyramid Cove; Northwest Harbor; Kingfisher Training Range; MTR-1, MTR-2, and Advanced Research Project Agency (ARPA).

The unusual physical bathymetries, the low numbers of protected species and the training routines at the sites where these exercises are conducted combine with the unusual pressure-wave propagation characteristics of the Northwest Harbor, where multiple charges are used, to allow exceptionally reliable and effective mitigation procedures. The exceptional reliability of visual detection of protected species at these sites allows for complete mitigation within a radius that extends out to the distance at which only the lowest degree of temporary auditory threshold shift (onset-TTS) would be expected to occur (if mitigation were not so effective at the site). Therefore, the Navy and NMFS do not expect mine neutralization exercises to result in the take of marine mammals and no take authorization pursuant to this activity type has been proposed.

Shallow Water Minefield

Currently, the Navy conducts mine countermeasures (MCM) training on two existing ranges in the SOCAL Range Complex: the Kingfisher Range off SCI and the ARPA Training Minefield off La Jolla. The ARPA has historically been used for shallow water submarine and MCM training, and is the desired location for expanding MCM training. ARPA currently supports the submarine training requirement for a shallow water minefield to train in small object

avoidance. Use of the ARPA shallow water minefield would be expanded from its current use by submarines to include surface ships and helicopters.

On the ARPA, 35 mine shapes approximately 30–35 inches in diameter, constructed of cylinders weighted with cement, are placed approximately 500–700 yards apart, either moored (no drilling is required) or simply set on the sea floor. Mine shapes are recoverable and replaceable, and typically need maintenance or cleaning every two years.

In addition to expanded use of the ARPA, the Navy proposes to establish an offshore shallow water minefield on Tanner Banks. The training area would be approximately 2 by 3 nm in size. Mine shapes like those used at ARPA would be placed on the ocean floor, with a total of 15 mine shapes in three rows of five. This offshore MCM range would be utilized by surface ships training to detect, classify and localize underwater mines.

MCM training involving ships or helicopters typically employ mid-to high-frequency navigation and mine detecting sonar systems. Once a mine shape is located, mine neutralization is simulated. Surface ships engaged in MCM training at ARPA and Tanner Banks MCM ranges would utilize the Remote Mine Hunting System (RMS). The RMS is an unmanned, semi-submersible vehicle that will be deployed from both the DDG-51 Class destroyer and the LCS. The RMS is launched and recovered by the host ship using a davit system. After deployment, the RMS enters the target zone to perform reconnaissance for bottom-laid mines. An area search is conducted following an operator-programmed search pattern. The RMS searches using low-power (< 85dB) acoustic sonar. Upon detecting a mine, the RMS unit will localize and photograph the object for classification, and then continue on its programmed search. When the search portion of the mission is completed, the RMS will proceed to a programmed location for recovery.

The exercises that will be conducted on these minefields have been described in previous sections and any expected take of marine mammals will be included when those exercise types are analyzed in later sections. NMFS does not expect the actual expansion and formation of the minefields to result in any take of marine mammals.

Shallow Water Training Range (SWTR) Extension

The SWTR component of the Proposed Action would provide underwater instrumentation for two

additional areas of the current SOAR, one 250nm² (463-km²) area to the west of the already instrumented (deep water) section, in the area of Tanner/Cortes Banks, and one 250 nm² (463-km²) area between the deep water section and the southern section of SCI (See Figure 2–3). Once in place, the new instrumentation in the SWTR would expand the areas of the Navy's existing program on SOAR to enhance the ability to use passive hydrophones to detect and track marine mammals. If installed in these areas, use of the SWTR would increase the use of these areas for ASW training involving MFAS.

The proposed instrumentation would be in the form of undersea cables and sensor nodes. The cables and sensors would be similar to those that instrument the current deep water range at (SOAR). The new areas would form an integral SWTR capability for SOAR. The combination of deep water and shallow water instrumentation would support a seamless tracking interface from deep to shallow water, which is an essential element of effective ASW training. The instrumented area would be connected to shore via multiple trunk cables.

The SWTR instrumentation would be an undersea cables system integrated with hydrophone and underwater telephone sensors, called nodes, connected to each other and then connected by up to eight trunk cable(s) to a land-based facility where the collected range data are used to evaluate the performance of participants in shallow water (120'-600'deep) training exercises. The basic proposed features of the instrumentation and construction follow.

The transducer nodes are capable of both transmitting and receiving acoustic signals from ships operating within the instrumented areas of SOAR (a transducer is an instrument that converts one form of energy into another [in this case, underwater sound into an electrical signal or vice-versa]). Some nodes are configured to only support receiving signals, some can both transmit and receive, and others are transmit-only versions. The acoustic signals that are sent from the exercise participants (e.g., submarines, torpedoes, ships) to the receive-capable range nodes allow the position of the participants to be determined and stored electronically for both real-time and future evaluation. The transmit-capable nodes allow communication from the range to ships or other devices that are being tracked. More specifically:

- The SWTR extension would consist of no more than 500 sensor nodes spread on the ocean floor over a 500-nm

area. The distance between nodes would vary between 0.5nm and 3nm, depending on water depth. Each sensor node would be similar on construction to the existing SOAR instrumentation. The sensor nodes are small spherical shapes of less than 6 inches in diameter. The sensors would be either suspended up to 15 feet in the water column or lie flat on the seafloor. Sensor nodes located in shallow water with a presence of commercial fishing activity would have an additional protective device surrounding or overlaying a sensor. These mechanical protective devices would be 3–4 feet round or rectangular with a shallow height. The final physical characteristics of the sensor nodes would be determined based upon local geographic conditions and to accommodate man-made threats such as fishing activity. Sensor nodes would be connected to each other by interconnect cable (standard submarine telecommunications cable with diameters less than 1 inch). Approximately 900nm of interconnect cable would be deployed.

- A series of sensor nodes would be connected via the interconnect cable to an underwater junction box(es) located in diver-accessible water depths. A junction box is rectangular in shape with dimensions of 10–15 feet on each side. The junction box(es) would connect to a shore-based facility via trunk cable(s) (submarine cables up to 2 inch diameter with additional data capacity). The trunk cable(s) eliminate the need to have numerous interconnect cables running to shore. Up to 8 trunk cables with a combined length of 375nm would be employed. Trunk cables would be protected in the sea-shore area by horizontally directionally drilled pipes running beneath the shoreline.

- The interconnect and trunk cables would be deployed using a ship with a length overall up to 300 feet. The trunk cable paths would be routed through the deep water as much as is possible. Trunk cable deployed in shallow water may require cable burial. Burial equipment would cut (hard bottom) or plow (soft sediment) a furrow 4 inches (10 cm) wide by up to 36 inches deep. Burial equipment (tracked vehicle or towed plow) would be deployed from a ship. The trunk cable, which passes through the sea-shore area, would terminate in SOAR's current cable termination facility (CTF) at West Cove. From there, information gathered on the SWTR would be transmitted via an existing microwave datalink to the Southern California Offshore Range (SCORE) Range Operations Center (ROC) on Naval Air Station North Island. The adjacent SOAR has a single

junction box located outside the nearshore area and places the trunk cable in a horizontally directionally drilled bore that terminates on shore. The size of the SWTR may require up to 8 junction boxes and 8 trunk cables. Multiple horizontal bores are in the SOAR. Every effort would be made to take advantage of any excess bore capacity available in the SOAR.

- The in-water instrumentation system would be structured to achieve a long operating life, with a goal of 20 years and with a minimum of maintenance and repair throughout the life-cycle. This is due to the high cost of performing at-sea repairs on transducer nodes and cables, the inherently long lead-time to plan, permit, fund and conduct such repairs (6–18 months) and the loss of range capability while awaiting completion. The long life performance would be achieved by using high quality components, proven designs, and multiple levels of redundancy in the system design. This includes back-up capacity for key electronic components and fault tolerance to the loss of individual sensors or even an entire sensor string. The use of materials capable of withstanding long term exposure to high water pressure and salt water-induced corrosion is also important. Periodic inspection and maintenance in accessible areas also extends system life.

The Navy would submit cable area coordinates to the National Geospatial Intelligence Agency (NGA) and request that the combined SWTR/SOAR area be noted on charts within the appropriate warning area. This area would be noted in the U.S. Coast Pilot as a Military Operating Area (MOA), as are other areas on the West Coast. The Navy may promulgate a Notice to Mariners (NOTMAR) and a Notice to Airmen (NOTAM) within 72 hours of the training activities, as appropriate.

Installation of the SWTR instrumentation array may be done in phases. For example, the Tanner Bank area could be installed first, followed by the eastern area. The decision as to whether or not to proceed in phases, how many phases, and the order in which the phases are executed is based on multiple factors, including weather, ship availability and capacity, production schedules for nodes and cable, installation time, total environmental impact of installation, funding availability, and efficiency.

RDT&E

Space and Naval Warfare Systems Center (SPAWARSYSCEN) conducts research, development, testing, and

evaluation (RDT&E), engineering, and fleet support for command, control, and communications systems and ocean surveillance in the SOCAL Range Complex, primarily in the vicinity of SCI. Specific events include ship tracking and torpedo tests, unmanned underwater vehicle (UUV) tests; and sonobuoy quality assurance/quality control.

The San Diego Division of the Naval Undersea Warfare Center (NUWC) is a Naval Sea Systems Command (NAVSEA) organization supporting the Pacific Fleet. NUWC operates and maintains the SCI Underwater Range (SCIUR). NUWC conducts tests, analysis, and evaluation of submarine USW exercises and test programs. NUWC also provides engineering and technical support for Undersea Warfare (USW) programs and exercises, design cognizance of underwater weapons acoustic and tracking ranges and associated range equipment, and provides proof testing and evaluation for underwater weapons, weapons systems, and components.

Additional information on the Navy's proposed activities may be found in the LOA Application and Appendix A of the Navy's SOCAL DEIS.

Description of Marine Mammals in the Area of the Specified Activities

The California Current passes through the SOCAL Range Complex, creating a mixing of temperate and tropical waters, and making this area one of the most productive ocean systems in the world (Hickey 1979, Hickey 1992, Daily *et al.* 1993, DoN 2002a). Because of this productive environment, there is a rich marine mammal fauna, as evidenced in abundance and species diversity (Leatherwood *et al.*, 1988; Bonnell and Dailey, 1993). In addition to many marine mammal species that live in the area year-round and use the region's coasts and islands for breeding and hauling out, there is a community of seasonal residents and migrants. The narrow continental shelf along the Pacific coast and the presence of the cold California Current sweeping down from Alaska allows cold-water marine mammal species to reach nearshore waters as far south as Baja California. The Southern California Bight (SCB) is the major geological region occurring within the SOCAL Range Complex and can be described as a complex combination of islands, ridges, and basins that exhibit wide ranges in water temperature. San Diego Bay, a naturally formed, crescent-shaped embayment is located along the southern end of the SCB (Largier, 1995; DoN, 2000); the bay provides habitat for a number of oceanic

and estuarine species as the ebb and flood of tides within the Bay circulate and mix ocean and Bay waters, creating for distinct circulation zones within San Diego Bay (*see* Chapter 2 of the application for further detail regarding these zones) (Largier *et al.*, 1996; DoN, 2000).

Populations/stocks of forty-one marine mammal species have been confirmed or may possibly occur in the study area off southern California (*see* Table 4), including 34 cetacean (whales, dolphins, and porpoises), six pinniped (seals, sea lions, and fur seals), and one

fissiped species (the sea otter, which is managed by the U.S. Fish and Wildlife Service and will not be addressed further here). Information on marine mammal occurrence at the Point Mugu Sea Range (just to the north of the SOCAL Range Complex) is analyzed in Koski *et al.* (1998). Temperate and warm-water toothed whales often change their distribution and abundance as oceanographic conditions vary both seasonally (Forney and Barlow, 1998) and interannually (Forney 2000). Forney and Barlow (1998) noted significant

north/south shifts in distribution for Dall's porpoises, common dolphins, and Pacific white-sided dolphins, and they identified significant inshore/offshore differences for northern right whale dolphins and humpback whales. Several authors have noted the impact of the El Niño events of 1982/1983 and 1997/1998 on marine mammal occurrence patterns and population dynamics in the waters off California (Wells *et al.*, 1990; Forney and Barlow, 1998; Benson *et al.*, 2002).

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Common Name	Species Name	Stock	Occurrence	Warm May-Oct	Cold Season Nov-Apr
Mysticetes					
Blue whale	<i>Balaenoptera musculus</i>	Eastern North Pacific	Seasonal, Arrive Apr-May, more common late summer to fall	YES	NO
Fin whale	<i>Balaenoptera physalus</i>	California, Oregon, & Washington	Year round species, small population	YES more	YES less
Humpback whale	<i>Megaptera novaeangliae</i>	California, Oregon, & Washington	Seasonal, More sightings around the northern Channel Islands	YES	NO
North Pacific right whale	<i>Eubalaena japonica</i>	Eastern North Pacific	Very rare Rare throughout the Pacific; only 12 sightings in California since 1900	RARE	RARE
Sei whale	<i>Balaenoptera borealis</i>	Eastern North Pacific	Rare. Less than three sightings within the last 30 years	UNK	UNK
Bryde's whale	<i>Balaenoptera edeni</i>	Eastern Tropical Pacific	Rare. Only one confirmed sighting in California	UNK	UNK
Gray whale	<i>Eschrichtius robustus</i>	Eastern North Pacific	Transient during seasonal migrations		
Minke whale	<i>Balaenoptera acutorostrata</i>	California, Oregon, & Washington	Less common in summer, small numbers around northern Channel Islands	NO	YES
Odontocetes					
Sperm whale	<i>Physeter macrocephalus</i>	California, Oregon, & Washington	Common year round, More likely in waters > 1000 m, most often > 2000 m	YES more	YES less
Bottlenose dolphin coastal	<i>Tursiops truncatus</i>	California Coastal	Limited, small population within one km of shore	YES	YES
Bottlenose dolphin offshore	<i>Tursiops truncatus</i>	California Offshore	Common	YES	YES
Long-beaked common dolphin	<i>Delphinus capensis</i>	California	Common, more inshore distribution	YES	YES
Northern right whale dolphin	<i>Lissodelphus borealis</i>	California, Oregon, & Washington	Common, cool water species, more abundant Nov-Apr		
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	California, Oregon, & Washington	Common, year round cool water species, more abundant Nov-Apr	YES less	YES more
Pantropical spotted dolphin	<i>Stenella attenuate</i>	Eastern Tropical Pacific	Rare	UNK	UNK
Risso's Dolphin	<i>Grampus griseus</i>	California, Oregon, & Washington	Common, present in summer, but higher densities Nov-Apr	YES less	YES more
Rough-toothed dolphin	<i>Steno bredanensis</i>	no stock designated on Pacific Coast	Rare, more tropical offshore species	RARE	RARE
Short-beaked common dolphin	<i>Delphinus delphis</i>	California, Oregon, & Washington	Common, one of the most abundant SOCAL dolphins, higher summer densities	YES more	YES less
Spinner dolphin	<i>Stenella longirostris</i>	no stock designated on Pacific Coast	Rare	RARE	RARE
Striped dolphin	<i>Stenella coerulescens</i>	California, Oregon, & Washington	Occasional visitor, cool water oceanic species	NO	RARE
Dall's porpoise	<i>Phocoenoides dalli</i>	California, Oregon, & Washington	Common, year round cool water species; more abundant Nov-Apr	NO	YES
False killer whale	<i>Pseudorca crassidens</i>	Eastern Tropical Pacific	Uncommon, warm water species, although stranding records from the Channel Islands	UNK	UNK
Killer whale offshore	<i>Orcinus orca</i>	Eastern North Pacific	Uncommon, occurs infrequently, more likely in winter	NO	YES
Killer whale transient	<i>Orcinus orca</i>	Eastern North Pacific	Uncommon, occurs infrequently, more likely in winter	NO	YES
Melon-headed whale	<i>Peponocephala electra</i>	no stock designated on Pacific Coast		RARE	RARE
Pygmy killer whale	<i>Feresa attenuata</i>	no stock designated on Pacific Coast		RARE	RARE
Short-finned pilot whale	<i>Globicephala macrorhynchus</i>	California, Oregon, & Washington	Uncommon, more common before 1982	UNK	UNK
Pygmy sperm whale	<i>Kogia breviceps</i>	California, Oregon, & Washington	Rare, seaward of 500-1000 m, limited sightings over entire SCB	UNK	UNK
Dwarf sperm whale	<i>Kogia sima</i>	California, Oregon, & Washington	Possible visitor, seaward of 500-1000 m, limited sightings over entire SCB	UNK	YES
Baird's beaked whale	<i>Berardius bairdi</i>	California, Oregon, & Washington	Rare	UNK	UNK
Cuvier's beaked whale	<i>Ziphius cavirostris</i>	California, Oregon, & Washington	Uncommon, seaward of 1000 m, only limited sightings in winter	YES	UNK
Mesoplodont beaked whales (including Blainville's, Hubbs', Perrin's, pygmy, and ginkgo-toothed beaked whales)	<i>Mesoplodon spp</i>	California, Oregon, & Washington	Rare, seaward of 500-1000 m, limited sightings	UNK	UNK
Pinniped					
Guadalupe fur seal	<i>Arctocephalus townsendi</i>	Mexico	Rare, Occasional visitor to northern Channel Islands, mainly breeds on Guadalupe Is., Mexico, May-July	UNK	UNK
Steller sea lion	<i>Eumetopias jubatus</i>	California, Oregon, & Washington	Very rare, Summer distribution north of 38°, last seen in northern Channel Islands in 1998	NO	NO
Northern elephant seal	<i>Mirounga angustirostris</i>	California Breeding	Common, Channel Island haul-outs of different age classes, including SCI Dec-Mar and Apr-Aug, spend 8-12 months in California	YES	YES
Pacific Harbor seal	<i>Phoca vitulina</i>	California	Common, Channel Islands haul-outs including SCI	YES	YES
California sea lion	<i>Zalophus californianus</i>	U.S. Stock	Common, most common pinniped, Channel Islands breeding sites in summer	YES	YES
Northern fur seal	<i>Callorhinus ursinus</i>	San Miguel Island	Common, small population that breeds on San Miguel Is May-Oct	YES more	YES less

Table 4 Marine Mammals with known or suspected occurrence in the Southern California Range Complex

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The Navy has compiled information on the abundance, behavior, status and distribution, and vocalizations of marine mammal species in SOCAL Range Complex waters from peer

reviewed literature, the Navy Marine Resource Assessment for the SOCAL Operating Area, NMFS Stock Assessment Reports, and marine mammal surveys using acoustics or visual observations from aircraft or

ships. This information may be viewed in the Navy's LOA application and/or the Navy's DEIS for SOCAL (see Availability). Additional information is available in NMFS Stock Assessment Reports, which may be viewed at:

<http://www.nmfs.noaa.gov/pr/sars/species.htm>.

Species Not Considered Further

Killer whale, Southern Resident

Stock—The Southern Resident stock of killer whale is not likely to be present within Southern California. This stock is most commonly seen in the inland waters of Washington state and southern Vancouver Island; however, individuals from this stock have been observed in Monterey Bay, California in January, 2000 and March, 2003, near the Farallon Islands in February 2005 and off Point Reyes in January 2006 (Pacific Fishery Management Council (PFMC) and NMFS 2006). Based on the above known information, there is a very low likelihood of Southern Resident killer whales being present in the action area, so this species will not be considered in greater detail.

North Pacific right whale—The likelihood of a North Pacific right whale being present in the action area is extremely low. It may be the most endangered of the large whale species (Perry *et al.* 1999) and currently there is no reliable population estimate, although the population in the eastern North Pacific Ocean is considered to be very small, perhaps in the tens to low hundreds of animals. Despite many years of systematic aerial and ship-based surveys for marine mammals off the western coast of the U.S., only seven documented sightings of right whales were made from 1990 through 2000 (Waite *et al.*, 2003). Based on this information, it is highly unlikely for this species to be present in the action area. Consequently, this species will not be considered in greater detail.

Steller sea lion (Eumetopias jubatus) Eastern Distinct Population Segment

Steller sea lions are also not expected to be present in the action area. Steller sea lions range along the North Pacific Rim from northern Japan to California (Loughlin *et al.*, 1984), with centers of abundance and distribution in the Gulf of Alaska and Aleutian Islands, respectively. In U.S. waters, there are two separate stocks of Steller sea lions: an eastern U.S. stock, which includes animals east of Cape Suckling, Alaska (144° W longitude), and a western U.S. stock, which includes animals at and west of Cape Suckling (Loughlin 1997). The closest rookery to the action area is Año Nuevo Island, which declined by 85% between 1970 and 1987 (LeBoeuf *et al.*, 1991). Steller sea lions are rarely sighted in Southern California waters and have not been documented interacting with southern California fisheries in over a decade. The last documented interaction with California-

based fisheries was in northern California, in 1994, with the California/Oregon drift gillnet fishery (NMFS, 2000). The last sighting of a Steller sea lion in Southern California was that of a subadult male that was briefly on San Miguel Island in 1998 (Thorson *et al.*, 1998). For the reasons listed above, Steller sea lions are not likely to be present in the action area, and will not be considered in greater detail.

Marine Mammal Density Estimates

The southern California region has been systematically surveyed for several years (1991–1993, 1996, 2001, 2005) by the National Marine Fisheries Service (NMFS), both via aircraft (e.g., Carretta and Forney, 1993) and vessel (e.g., Ferguson and Barlow, 2003; Barlow, 2003; Forney, 2007). The most recent vessel survey was conducted in the U.S. Exclusive Economic Zone (EEZ) out to 300 nm offshore of California, Oregon and Washington by NMFS in summer and fall 2005 (Barlow, 2007; Forney, 2007). There has also been regional survey effort in the area of the proposed action, particularly around San Clemente Island and in extreme near shore areas (e.g., Carretta *et al.*, 2000; Carretta, 2003). Consequently there are several density estimates available for most cetacean species in southern California.

For this LOA, NMFS Southwest Fisheries Science Center calculated marine mammal density estimates based on compiled densities from vessel surveys conducted from 1986 to 2005, and provided it to the Navy as Government Furnished Information (GFI). A new multiple-covariate, line-transect approach (Marques and Buckland, 2003) was used to account for multiple factors that affect the distance at which cetaceans can be seen in different conditions. Other computational procedures were as described in Barlow (2007) and Forney (2007).

These density compilations prorate densities of “unidentified” species groups (such as unidentified dolphins, small whales, rorquals, large whales, etc.) with densities of identified species, so likely represent the most conservative densities at this time for the southern California region. Densities are presented for warm (May–October) and cold water (November–April) seasons north of 30° N, which is the southern extent of NMFS marine mammal survey cruises. Gray whale densities were taken from Carretta *et al.* (2000), and are applicable for January–April only. The geographic distributions of cetacean species for which densities are available off southern California

overlap completely with all eight sonar areas (shown in Figure 3–1 of the application), so further refinement of densities to sonar areas was not necessary. Area 8 includes all areas outside the previous seven areas that are within the quasi-rectangular region bounded in latitude by 29° N and 34° N, and in longitude by 120°30' W and 116°30' W but is not indicated in Figure 3–1 of the application.

Pinniped at-sea density is not often known because pinniped abundance is obtained via shore counts of animals at known rookeries and haulouts. Therefore, densities of pinnipeds were derived quite differently from those of cetaceans. Several parameters were identified from the literature, including area of stock occurrence, number of animals (which may vary seasonally) and season, and those parameters were then used to calculate density. Once density per “pinniped season” was determined, those values were prorated to fit the warm water (May–October) and cold water (November–April) seasons. Pinniped geographic distributions do not overlap all sonar areas, so density was further refined as the percentage of each sonar area actually overlapped by the species distribution. Determining density in this manner is risky as the parameters used usually contain error (e.g., geographic range is not exactly known and needs to be estimated, abundance estimates usually have large variances) and, as is true of all density estimates, it assumes that animals are always distributed evenly within an area which is likely never true. However, this remains one of the few means available to determine at-sea density for pinnipeds.

The detailed density estimate methods and results may be viewed in Section 3.5 of the Navy's LOA application. Density and abundance are summarized in Table 13.

Depth Distribution of Marine Mammals

There are limited depth distribution data for most marine mammals. This is especially true for cetaceans, as they must be tagged at-sea and by using a tag that either must be implanted in the skin/blubber in some manner or adhere to the skin. There is slightly more data for some pinnipeds, as they can be tagged while on shore during breeding or molting seasons and the tags can be glued to the pelage rather than implanted. There are a few different methodologies/techniques that can be used to determine depth distribution percentages, but by far the most widely used technique currently is the time-depth recorder. These instruments are attached to the animal for a fairly short

period of time (several hours to a few days) via a suction cup or glue, and then retrieved immediately after detachment or when the animal returns to the beach. Depth information can also be collected via satellite tags, sonic tags, digital tags, and, for sperm whales, via acoustic tracking of sounds produced by the animal itself.

There are somewhat suitable depth distribution data for a few marine mammal species. Sample sizes are usually extremely small, nearly always fewer than 10 animals total and often only one or two animals. Depth distribution information often must be interpreted from other dive and/or preferred prey characteristics. Depth distributions for species for which no data are available can be extrapolated from similar species.

Density is nearly always reported for an area, e.g., animals/km². Analyses of survey results using Distance Sampling techniques include correction factors for animals at the surface but not seen as well as animals below the surface and not seen. Therefore, although the area (e.g., km²) appears to represent only the surface of the water (two-dimensional), density actually implicitly includes animals anywhere within the water column under that surface area. Density assumes that animals are uniformly distributed within the prescribed area, even though this is likely rarely true. Marine mammals are usually clumped in areas of greater importance, for example, areas of high productivity, lower predation, safe calving, etc. Density estimates are typically derived for large areas by NMFS, for instance the All California and Point Conception south stratas presented in Forney and Barlow, 2007. Often scientific information on smaller scale distribution and density within discrete areas such as the SOCAL modeling areas used in the acoustic impact analysis is lacking and larger scale densities have to be used as an approximate. The available NMFS derived density estimates are therefore used in lieu of small scale density estimates. In addition, as a further conservative approach, these densities are evenly distributed across a given model area since the degree of daily, seasonal, and yearly presence/absence or spatial clumping is currently not well known for many species.

Assuming that marine mammals are distributed evenly within the water column is not accurate. The ever-expanding database of marine mammal behavioral and physiological parameters obtained through tagging and other technologies has demonstrated that marine mammals use the water column

in various ways, with some species capable of regular deep dives (<800 m) and others regularly diving to <200 m, regardless of the bottom depth. Assuming that all species are evenly distributed from surface to bottom is almost never appropriate and can present a distorted view of marine mammal distribution in any region.

By combining marine mammal density with depth distribution information, as is done for the SOCAL Range Complex, a more accurate three-dimensional density estimate is possible. These 3-D estimates allow more accurate modeling of potential marine mammal exposures from specific noise sources. Complete details on species biological parameters used in sonar and explosives modeling are provided in Appendix F to the SOCAL DEIS.

Brief Background on Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. A summary is included below.

Sound is a wave of pressure variations propagating through a medium (for the MFAS/HFAS considered in this proposed rule, the medium is marine water). Pressure variations are created by compressing and relaxing the medium. Sound measurements can be expressed in two forms: intensity and pressure. Acoustic intensity is the average rate of energy transmitted through a unit area in a specified direction and is expressed in watts per square meter (W/m²). Acoustic intensity is rarely measured directly, it is derived from ratios of pressures; the standard reference pressure for underwater sound is 1 microPascal (μPa); for airborne sound, the standard reference pressure is 20 μPa (Richardson *et al.*, 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in decibels (dB). Decibel measurements represent the ratio between a measured pressure value and a reference pressure value (in this case 1 μPa or, for airborne sound, 20 μPa.). The logarithmic nature of the scale means that each 10 dB increase is a ten-fold increase in power (e.g., 20 dB is a 100-fold increase, 30 dB is a 1,000-fold increase). Humans perceive a 10-dB increase in noise as a doubling of loudness, or a 10 dB decrease in noise as a halving of loudness. The term “sound pressure level” implies a decibel measure and a reference pressure that is used as the denominator of the ratio. Throughout this document, NMFS uses 1 microPascal (denoted re:

1μPa) as a standard reference pressure unless noted otherwise.

It is important to note that decibels underwater and decibels in air are not the same and cannot be directly compared. To estimate a comparison between sound in air and underwater, because of the different densities of air and water and the different decibel standards (i.e., reference pressures) in water and air, a sound with the same intensity (i.e., power) in air and in water would be approximately 63 dB quieter in air. Thus a sound that is 160 dB loud underwater would have the same approximate effective intensity as a sound that is 97 dB loud in air.

Sound frequency is measured in cycles per second, or Hertz (abbreviated Hz), and is analogous to musical pitch; high-pitched sounds contain high frequencies and low-pitched sounds contain low frequencies. Natural sounds in the ocean span a huge range of frequencies: from earthquake noise at 5 Hz to harbor porpoise clicks at 150,000 Hz (150 kHz). These sounds are so low or so high in pitch that humans cannot even hear them; acousticians call these infrasonic (typically below 20 Hz) and ultrasonic (typically above 20,000 Hz) sounds, respectively. A single sound may be made up of many different frequencies together. Sounds made up of only a small range of frequencies are called “narrowband”, and sounds with a broad range of frequencies are called “broadband”; explosives are an example of a broadband sound source and active tactical sonars are an example of a narrowband sound source.

When considering the influence of various kinds of sound on the marine environment, it is necessary to understand that different kinds of marine life are sensitive to different frequencies of sound. Based on available behavioral data, audiograms derived using auditory evoked potential (AEP) techniques, anatomical modeling, and other data, Southall *et al.* (2007) designate “functional hearing groups” for marine mammals and estimate the lower and upper frequencies of functional hearing of the groups. Further, the frequency range in which each group’s hearing is estimated as being most sensitive is represented in the flat part of the M-weighting functions developed for each group. The functional groups and the associated frequencies are indicated below (though, again, animals are less sensitive to sounds at the outer edge of their functional range and most sensitive to sounds of frequencies within a smaller range somewhere in the middle of their functional hearing range):

- Low frequency cetaceans (13 species of mysticetes): functional hearing is estimated to occur between approximately 7 Hz and 22 kHz;
- Mid-frequency cetaceans (32 species of dolphins, six species of larger toothed whales, and 19 species of beaked and bottlenose whales): functional hearing is estimated to occur between approximately 150 Hz and 160 kHz;
- High frequency cetaceans (eight species of true porpoises, six species of river dolphins, Kogia, the franciscana, and four species of cephalarhynchids): functional hearing is estimated to occur between approximately 200 Hz and 180 kHz;
- Pinnipeds in Water: functional hearing is estimated to occur between approximately 75 Hz and 75 kHz, with the greatest sensitivity between approximately 700 Hz and 20 kHz.

Because ears adapted to function underwater are physiologically different from human ears, comparisons using decibel measurements in air would still not be adequate to describe the effects of a sound on a whale. When sound travels away from its source, its loudness decreases as the distance traveled (propagates) by the sound increases. Thus, the loudness of a sound at its source is higher than the loudness of that same sound a kilometer distant. Acousticians often refer to the loudness of a sound at its source (typically measured one meter from the source) as the source level and the loudness of sound elsewhere as the received level. For example, a humpback whale three kilometers from an airgun that has a source level of 230 dB may only be exposed to sound that is 160 dB loud, depending on how the sound propagates (in this example, it is spherical spreading). As a result, it is important not to confuse source levels and received levels when discussing the loudness of sound in the ocean or its impacts on the marine environment.

As sound travels from a source, its propagation in water is influenced by various physical characteristics, including water temperature, depth, salinity, and surface and bottom properties that cause refraction, reflection, absorption, and scattering of sound waves. Oceans are not homogeneous and the contribution of each of these individual factors is extremely complex and interrelated. The physical characteristics that determine the sound's speed through the water will change with depth, season, geographic location, and with time of day (as a result, in actual MFAS/HFAS operations, crews will measure oceanic conditions, such as sea water

temperature and depth, to calibrate models that determine the path the sonar signal will take as it travels through the ocean and how strong the sound signal will be at a given range along a particular transmission path). As sound travels through the ocean, the intensity associated with the wavefront diminishes, or attenuates. This decrease in intensity is referred to as propagation loss, also commonly called transmission loss.

Metrics Used in This Document

This section includes a brief explanation of the two sound measurements (sound pressure level (SPL) and sound exposure level (SEL)) frequently used in the discussions of acoustic effects in this document.

SPL

Sound pressure is the sound force per unit area, and is usually measured in micropascals (μPa), where 1 Pa is the pressure resulting from a force of one newton exerted over an area of one square meter. SPL is expressed as the ratio of a measured sound pressure and a reference level. The commonly used reference pressure level in underwater acoustics is 1 μPa , and the units for SPLs are dB re: 1 μPa .

$\text{SPL (in dB)} = 20 \log (\text{pressure} / \text{reference pressure})$.

SPL is an instantaneous measurement and can be expressed as the peak, the peak-peak, or the root mean square (rms). Root mean square, which is the square root of the arithmetic average of the squared instantaneous pressure values, is typically used in discussions of the effects of sounds on vertebrates and all references to SPL in this document refer to the root mean square. SPL does not take the duration of a sound into account. SPL is the applicable metric used in the risk continuum, which is used to estimate behavioral harassment takes (see Level B Harassment Risk Function (Behavioral Harassment) Section).

SEL

SEL is an energy metric that integrates the squared instantaneous sound pressure over a stated time interval. The units for SEL are dB re: 1 $\mu\text{Pa}^2\text{-s}$.

$\text{SEL} = \text{SPL} + 10 \log (\text{duration in seconds})$.

As applied to MFAS/HFAS, the SEL includes both the SPL of a sonar ping and the total duration. Longer duration pings and/or pings with higher SPLs will have a higher SEL.

If an animal is exposed to multiple pings, the SEL in each individual ping is summed to calculate the total SEL. The total SEL depends on the SPL,

duration, and number of pings received. The thresholds that NMFS uses to indicate at what received level the onset of temporary threshold shift (TTS) and permanent threshold shift (PTS) in hearing are likely to occur are expressed in SEL.

Potential Effects of Specified Activities on Marine Mammals

Exposure to MFAS/HFAS

The Navy has requested authorization for the take of marine mammals that may occur incidental to training activities in the SOCAL Range Complex utilizing MFAS/HFAS or underwater detonations. The Navy has analyzed the potential impacts to marine mammals from training activities in the SOCAL Range Complex, including ship strike, entanglement in or direct strike by expended materials, ship noise, and others, and in consultation with NMFS as a cooperating agency for the SOCAL EIS, has determined that take of marine mammals incidental to these non-acoustic components of SOCAL is unlikely and, therefore, has not requested authorization for take of marine mammals that might occur incidental to these non-acoustic components. In this document, NMFS analyzes the potential effects on marine mammals from exposure to MFAS/HFAS and underwater detonations from the IEER.

For the purpose of MMPA authorizations, NMFS' effects assessments serve three primary purposes: (1) to put forth the permissible methods of taking within the context of MMPA Level B Harassment (behavioral harassment), Level A Harassment (injury), and mortality (i.e., identify the number and types of take that will occur); (2) to determine whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival); and (3) to determine whether the specified activity will have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (however, there are no subsistence communities that would be affected in the SOCAL Range Complex, so this determination is inapplicable for SOCAL).

More specifically, for activities involving sonar or underwater detonations, NMFS' analysis will identify the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary

threshold shifts and acoustic masking), physiological responses (particular stress responses), behavioral disturbance (that rises to the level of harassment), and social responses that would be classified as behavioral harassment or injury and/or would be likely to adversely affect the species or stock through effects on annual rates of recruitment or survival. In this section, we will focus qualitatively on the different ways that MFAS/HFAS and underwater explosive detonations (IEER) may affect marine mammals (some of which NMFS would not classify as harassment). Then, in the Estimated Take of Marine Mammals Section, NMFS will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA regulatory definitions of Level A and Level B Harassment and attempt to quantify those effects.

In its June 21, 2008, Biological Opinion of the U.S. Navy's proposal to conduct MFAS in the Hawaii Range Complex, NMFS presented a conceptual model of the potential responses of endangered and threatened species upon being exposed to MFAS/HFAS and the pathways by which those responses might affect the fitness of individual animals that have been exposed, which may then affect the reproduction and/or survival of those individuals. Literature supporting the framework, with examples drawn from many taxa (both aquatic and terrestrial) was included in the "Application of this Approach" and "Response Analyses" sections of that document (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>). This conceptual framework may also be used to describe the responses and pathways for non-endangered and non-threatened species and is included in Biological Opinion of the U.S. Navy's proposal to conduct MFAS in the Hawaii Range Complex.

Direct Physiological Effects

Based on the literature, there are two basic ways that MFAS/HFAS might directly result in physical trauma or damage: Noise-induced loss of hearing sensitivity (more commonly called "threshold shift") and acoustically mediated bubble growth. Separately, an animal's behavioral reaction to an acoustic exposure might lead to physiological effects that might ultimately lead to injury or death, which is discussed later in the Stranding section.

Threshold Shift (Noise-Induced Loss of Hearing)

When animals exhibit reduced hearing sensitivity (i.e., sounds must be louder for an animal to recognize them) following exposure to a sufficiently intense sound, it is referred to as a noise-induced threshold shift (TS). An animal can experience temporary threshold shift (TTS) or permanent threshold shift (PTS). TTS can last from minutes or hours to days (i.e., there is recovery), occurs in specific frequency ranges (i.e., an animal might only have a temporary loss of hearing sensitivity between the frequencies of 1 and 10 kHz), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced by only 6 dB or reduced by 30 dB). PTS is permanent (i.e., there is no recovery), but also occurs in a specific frequency range and amount as mentioned above for TTS.

The following physiological mechanisms are thought to play a role in inducing auditory TSs: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output (Southall *et al.*, 2007). The amplitude, duration, frequency, temporal pattern, and energy distribution of sound exposure all affect the amount of associated TS and the frequency range in which it occurs. As amplitude and duration of sound exposure increase, so, generally, does the amount of TS, along with the recovery time. For continuous sounds, exposures of equal energy (the same SEL) will lead to approximately equal effects. For intermittent sounds, less TS will occur than from a continuous exposure with the same energy (some recovery will occur between intermittent exposures) (Kryter *et al.*, 1966; Ward, 1997). For example, one short but loud (higher SPL) sound exposure may induce the same impairment as one longer but softer sound, which in turn may cause more impairment than a series of several intermittent softer sounds with the same total energy (Ward, 1997). Additionally, though TTS is temporary, very prolonged exposure to sound strong enough to elicit TTS, or shorter-term exposure to sound levels well above the TTS threshold, can cause PTS, at least in terrestrial mammals (Kryter, 1985) (although in the case of MFAS/HFAS, animals are not expected to be exposed

to levels high enough or durations long enough to result in PTS).

PTS is considered auditory injury (Southall *et al.*, 2007). Irreparable damage to the inner or outer cochlear hair cells may cause PTS; however, other mechanisms are also involved, such as exceeding the elastic limits of certain tissues and membranes in the middle and inner ears and resultant changes in the chemical composition of the inner ear fluids (Southall *et al.*, 2007).

Although the published body of scientific literature contains numerous theoretical studies and discussion papers on hearing impairments that can occur with exposure to a loud sound, only a few studies provide empirical information on the levels at which noise-induced loss in hearing sensitivity occurs in nonhuman animals. For cetaceans, published data on the onset of TTS are limited to the captive bottlenose dolphin and beluga (Finneran *et al.*, 2000, 2002b, 2005a; Schlundt *et al.*, 2000; Nachtigall *et al.*, 2003, 2004). For pinnipeds in water, data are limited to Kastak *et al.*'s measurement of TTS in one harbor seal, one elephant seal, and one California sea lion.

Marine mammal hearing plays a critical role in communication with conspecifics, and interpretation of environmental cues for purposes such as predator avoidance and prey capture. Depending on the degree (elevation of threshold in dB), duration (i.e., recovery time), and frequency range of TTS, and the context in which it is experienced, TTS can have effects on marine mammals ranging from discountable to serious (similar to those discussed in auditory masking, below). For example, a marine mammal may be able to readily compensate for a brief, relatively small amount of TTS in a non-critical frequency range that takes place during a time when the animal is traveling through the open ocean, where ambient noise is lower and there are not as many competing sounds present. Alternatively, a larger amount and longer duration of TTS sustained during time when communication is critical for successful mother/calf interactions could have more serious impacts. Also, depending on the degree and frequency range, the effects of PTS on an animal could range in severity, although it is considered generally more serious because it is a permanent condition. Of note, reduced hearing sensitivity as a simple function of development and aging has been observed in marine mammals, as well as humans and other taxa (Southall *et al.*, 2007), so we can infer that strategies exist for coping with

this condition to some degree, though likely not without cost. There is no empirical evidence that exposure to MFAS/HFAS can cause PTS in any marine mammals; instead the probability of PTS has been inferred from studies of TTS (see Richardson *et al.*, 1995).

Acoustically Mediated Bubble Growth

One theoretical cause of injury to marine mammals is rectified diffusion (Crum and Mao, 1996), the process of increasing the size of a bubble by exposing it to a sound field. This process could be facilitated if the environment in which the ensonified bubbles exist is supersaturated with gas. Repetitive diving by marine mammals can cause the blood and some tissues to accumulate gas to a greater degree than is supported by the surrounding environmental pressure (Ridgway and Howard, 1979). The deeper and longer dives of some marine mammals (for example, beaked whales) are theoretically predicted to induce greater supersaturation (Houser *et al.*, 2001b). If rectified diffusion were possible in marine mammals exposed to high-level sound, conditions of tissue supersaturation could theoretically speed the rate and increase the size of bubble growth. Subsequent effects due to tissue trauma and emboli would presumably mirror those observed in humans suffering from decompression sickness.

It is unlikely that the short duration of MFAS pings would be long enough to drive bubble growth to any substantial size, if such a phenomenon occurs. However, an alternative but related hypothesis has also been suggested: Stable bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. In such a scenario the marine mammal would need to be in a gas-supersaturated state for a long enough period of time for bubbles to become of a problematic size.

Yet another hypothesis (decompression sickness) has speculated that rapid ascent to the surface following exposure to a startling sound might produce tissue gas saturation sufficient for the evolution of nitrogen bubbles (Jepson *et al.*, 2003; Fernandez *et al.*, 2005). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. Collectively, these hypotheses can be referred to as “hypotheses of acoustically mediated bubble growth.”

Although theoretical predictions suggest the possibility for acoustically mediated bubble growth, there is considerable disagreement among scientists as to its likelihood (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Crum and Mao (1996) hypothesized that received levels would have to exceed 190 dB in order for there to be the possibility of significant bubble growth due to supersaturation of gases in the blood (i.e., rectified diffusion). More recent work conducted by Crum *et al.* (2005) demonstrated the possibility of rectified diffusion for short duration signals, but at SELs and tissue saturation levels that are highly improbable to occur in diving marine mammals. To date, Energy Levels (ELs) predicted to cause *in vivo* bubble formation within diving cetaceans have not been evaluated (NOAA, 2002b). Although it has been argued that traumas from some recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003), there is no conclusive evidence of this. However, Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005) concluded that *in vivo* bubble formation, which may be exacerbated by deep, long-duration, repetitive dives may explain why beaked whales appear to be particularly vulnerable to MFAS/HFAS exposures. Further investigation is needed to further assess the potential validity of these hypotheses. More information regarding hypotheses that attempt to explain how behavioral responses to MFAS/HFAS can lead to strandings is included in the Behaviorally Mediated Bubble Growth Section, after the summary of strandings.

Acoustic Masking

Marine mammals use acoustic signals for a variety of purposes, which differ among species, but include communication between individuals, navigation, foraging, reproduction, and learning about their environment (Erbe and Farmer, 2000; Tyack, 2000). Masking, or auditory interference, generally occurs when sounds in the environment are louder than and of a similar frequency to, auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals that are trying to receive acoustic information about their environment, including sounds from other members of their species, predators, prey, and sounds that allow them to orient in their environment. Masking these acoustic signals can disturb the behavior of individual animals, groups of animals, or entire populations.

The extent of the masking interference depends on the spectral, temporal, and spatial relationships between the signals an animal is trying to receive and the masking noise, in addition to other factors. In humans, significant masking of tonal signals occurs as a result of exposure to noise in a narrow band of similar frequencies. As the sound level increases, though, the detection of frequencies above those of the masking stimulus decreases also. This principle is expected to apply to marine mammals as well because of common biomechanical cochlear properties across taxa.

Richardson *et al.* (1995b) argued that the maximum radius of influence of an industrial noise (including broadband low-frequency sound transmission) on a marine mammal is the distance from the source to the point at which the noise can barely be heard. This range is determined by either the hearing sensitivity of the animal or the background noise level present. Industrial masking is most likely to affect some species' ability to detect communication calls and natural sounds (i.e., surf noise, prey noise, etc.; Richardson *et al.*, 1995).

The echolocation calls of toothed whales are subject to masking by high-frequency sound. Human data indicate low-frequency sound can mask high-frequency sounds (i.e., upward masking). Studies on captive odontocetes by Au *et al.* (1974, 1985, 1993) indicate that some species may use various processes to reduce masking effects (e.g., adjustments in echolocation call intensity or frequency as a function of background noise conditions). There is also evidence that the directional hearing abilities of odontocetes are useful in reducing masking at the high-frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.*, 1980). A recent study by Nachtigall and Supin (2008) showed that false killer whales adjust their hearing to compensate for ambient sounds and the intensity of returning echolocation signals.

Nachtigall, P.E. and A.Y. Supin. 2008

As mentioned previously, the functional hearing ranges of mysticetes, odontocetes, and pinnipeds underwater all encompass the frequencies of the MFAS/HFAS sources used in the Navy's MFAS/HFAS training exercises. Additionally, in almost all species, vocal repertoires span across the frequencies of these MFAS/HFAS sources used by the Navy. The closer the characteristics of the masking signal to the signal of interest, the more likely

masking is to occur. For hull-mounted MFAS/HFAS—which accounts for the largest part of the takes of marine mammals (because of the source strength and number of hours it's conducted), the pulse length and duty cycle of the MFAS/HFAS signal (~ 1 second pulse twice a minute) makes it less likely that masking will occur as a result.

Impaired Communication

In addition to making it more difficult for animals to perceive acoustic cues in their environment, anthropogenic sound presents separate challenges for animals that are vocalizing. When they vocalize, animals are aware of environmental conditions that affect the “active space” of their vocalizations, which is the maximum area within which their vocalizations can be detected before it drops to the level of ambient noise (Brenowitz, 2004; Brumm *et al.*, 2004; Lohr *et al.*, 2003). Animals are also aware of environmental conditions that affect whether listeners can discriminate and recognize their vocalizations from other sounds, which is more important than simply detecting that a vocalization is occurring (Brenowitz, 1982; Brumm *et al.*, 2004; Dooling, 2004; Marten and Marler, 1977; Patricelli *et al.*, 2006). Most animals that vocalize have evolved with an ability to make adjustments to their vocalizations to increase the signal-to-noise ratio, active space, and recognizability/distinguishability of their vocalizations in the face of temporary changes in background noise (Brumm *et al.*, 2004; Patricelli *et al.*, 2006). Vocalizing animals can make one or more of the following adjustments to their vocalizations: Adjust the frequency structure; adjust the amplitude; adjust temporal structure; or adjust temporal delivery (see Biological Opinion).

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds that reduce the signal-to-noise ratio of animal vocalizations, increase the masked auditory thresholds of animals listening for such vocalizations, or reduce the active space of an animal's vocalizations impair communication between animals. Most animals that vocalize have evolved strategies to compensate for the effects of short-term or temporary increases in background or ambient noise on their songs or calls. Although the fitness consequences of these vocal adjustments remain unknown, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.*, 2006). For example, vocalizing more loudly in

noisy environments may have energetic costs that decrease the net benefits of vocal adjustment and alter a bird's energy budget (Brumm, 2004; Wood and Yezerinac, 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996).

Stress Responses

Classic stress responses begin when an animal's central nervous system perceives a potential threat to its homeostasis. That perception triggers stress responses regardless of whether a stimulus actually threatens the animal; the mere perception of a threat is sufficient to trigger a stress response (Moberg, 2000; Sapolsky *et al.*, 2005; Seyle, 1950). Once an animal's central nervous system perceives a threat, it mounts a biological response or defense that consists of a combination of the four general biological defense responses: Behavioral responses, autonomic nervous system responses, neuroendocrine responses, or immune response.

In the case of many stressors, an animal's first and most economical (in terms of biotic costs) response is behavioral avoidance of the potential stressor or avoidance of continued exposure to a stressor. An animal's second line of defense to stressors involves the sympathetic part of the autonomic nervous system and the classical “fight or flight” response which includes the cardiovascular system, the gastrointestinal system, the exocrine glands, and the adrenal medulla to produce changes in heart rate, blood pressure, and gastrointestinal activity that humans commonly associate with “stress.” These responses have a relatively short duration and may or may not have significant long-term effect on an animal's welfare.

An animal's third line of defense to stressors involves its neuroendocrine or sympathetic nervous systems; the system that has received the most study has been the hypothalamus-pituitary-adrenal system (also known as the HPA axis in mammals or the hypothalamus-pituitary-interrenal axis in fish and some reptiles). Unlike stress responses associated with the autonomic nervous system, virtually all neuro-endocrine functions that are affected by stress—including immune competence, reproduction, metabolism, and behavior—are regulated by pituitary hormones. Stress-induced changes in the secretion of pituitary hormones have been implicated in failed reproduction (Moberg, 1987; Rivier, 1995) and altered metabolism (Elasser *et al.*, 2000), reduced immune competence (Blecha,

2000) and behavioral disturbance. Increases in the circulation of glucocorticosteroids (cortisol, corticosterone, and aldosterone in marine mammals; see Romano *et al.*, 2004) have been equated with stress for many years.

The primary distinction between stress (which is adaptive and does not normally place an animal at risk) and distress is the biotic cost of the response. During a stress response, an animal uses glycogen stores that can be quickly replenished once the stress is alleviated. In such circumstances, the cost of the stress response would not pose a risk to the animal's welfare. However, when an animal does not have sufficient energy reserves to satisfy the energetic costs of a stress response, energy resources must be diverted from other biotic function, which impairs those functions that experience the diversion. For example, when mounting a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When mounting a stress response diverts energy from a fetus, an animal's reproductive success and its fitness will suffer. In these cases, the animals will have entered a pre-pathological or pathological state which is called “distress” (sensu Seyle, 1950) or “allostatic loading” (sensu McEwen and Wingfield, 2003). This pathological state will last until the animal replenishes its biotic reserves sufficient to restore normal function.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiment; because this physiology exists in every vertebrate that has been studied, it is not surprising that stress responses and their costs have been documented in both laboratory and free-living animals (for examples see, Holberton *et al.*, 1996; Hood *et al.*, 1998; Jessop *et al.*, 2003; Krausman *et al.*, 2004; Lankford *et al.*, 2005; Reneerkens *et al.*, 2002; Thompson and Hamer, 2000). Although no information has been collected on the physiological responses of marine mammals to exposure to anthropogenic sounds, studies of other marine animals and terrestrial animals would lead us to expect some marine mammals to experience physiological stress responses and, perhaps, physiological responses that would be classified as “distress” upon exposure to high frequency, mid-frequency and low-frequency sounds.

For example, Jansen (1998) reported on the relationship between acoustic

exposures and physiological responses that are indicative of stress responses in humans (for example, elevated respiration and increased heart rates). Jones (1998) reported on reductions in human performance when faced with acute, repetitive exposures to acoustic disturbance. Trimmer *et al.* (1998) reported on the physiological stress responses of osprey to low-level aircraft noise while Krausman *et al.* (2004) reported on the auditory and physiology stress responses of endangered Sonoran pronghorn to military overflights. Smith *et al.* (2004a, 2004b) identified noise-induced physiological transient stress responses in hearing-specialist fish (*i.e.*, goldfish) that accompanied short- and long-term hearing losses. Welch and Welch (1970) reported physiological and behavioral stress responses that accompanied damage to the inner ears of fish and several mammals.

Hearing is one of the primary senses marine mammals use to gather information about their environment and to communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) on marine mammals remains limited, it seems reasonable to assume that reducing an animal's ability to gather information about its environment and to communicate with other members of its species would be stressful for animals that use hearing as their primary sensory mechanism. Therefore, we assume that acoustic exposures sufficient to trigger onset PTS or TTS would be accompanied by physiological stress responses because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset TTS. Based on empirical studies of the time required to recover from stress responses (Moberg, 2000), NMFS also assumes that stress responses could persist beyond the time interval required for animals to recover from TTS and might result in pathological and pre-pathological states that would be as significant as behavioral responses to TTS.

Behavioral Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of and response to (nature and magnitude) an acoustic event. An animal's prior experience with a sound or sound source effects whether it is less likely (habituation) or more likely (sensitization) to respond to

certain sounds in the future (animals can also be innately pre-disposed to respond to certain sounds in certain ways) (Southall *et al.*, 2007). Related to the sound itself, the perceived nearness of the sound, bearing of the sound (approaching vs. retreating), similarity of a sound to biologically relevant sounds in the animal's environment (*i.e.*, calls of predators, prey, or conspecifics), and familiarity of the sound may effect the way an animal responds to the sound (Southall *et al.*, 2007). Individuals (of different age, gender, reproductive status, etc.) among most populations will have variable hearing capabilities, and differing behavioral sensitivities to sounds that will be affected by prior conditioning, experience, and current activities of those individuals. Often, specific acoustic features of the sound and contextual variables (*i.e.*, proximity, duration, or recurrence of the sound or the current behavior that the marine mammal is engaged in or its prior experience), as well as entirely separate factors such as the physical presence of a nearby vessel, may be more relevant to the animal's response than the received level alone.

Exposure of marine mammals to sound sources can result in (but is not limited to) the following observable responses: Increased alertness; orientation or attraction to a sound source; vocal modifications; cessation of feeding; cessation of social interaction; alteration of movement or diving behavior; habitat abandonment (temporary or permanent); and, in severe cases, panic, flight, stampede, or stranding, potentially resulting in death (Southall *et al.*, 2007). A review of marine mammal responses to anthropogenic sound was first conducted by Richardson (1995). A more recent review (Nowacek *et al.*, 2007) addresses studies conducted since 1995 and focuses on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. The following subsections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the differential sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed. Estimates of the types of behavioral responses that could occur for a given sound exposure should be determined from the literature that is available for each species, or extrapolated from closely related species when no information exists.

Flight Response—A flight response is a dramatic change in normal movement to a directed and rapid movement away from the perceived location of a sound source. Relatively little information on flight responses of marine mammals to anthropogenic signals exist, although observations of flight responses to the presence of predators have occurred (Connor and Heithaus, 1996). Flight responses have been speculated as being a component of marine mammal strandings associated with MFAS activities (Evans and England, 2001).

Response to Predator—Evidence suggests that at least some marine mammals have the ability to acoustically identify potential predators. For example, harbor seals that reside in the coastal waters off British Columbia are frequently targeted by certain groups of killer whales, but not others. The seals discriminate between the calls of threatening and non-threatening killer whales (Deecke *et al.*, 2002), a capability that should increase survivorship while reducing the energy required for attending to and responding to all killer whale calls.

Diving—Changes in dive behavior can vary widely. They may consist of increased or decreased dive times and surface intervals as well as changes in the rates of ascent and descent during a dive. Variations in dive behavior may reflect interruptions in biologically significant activities (*e.g.*, foraging) or they may be of little biological significance. Variations in dive behavior may also expose an animal to potentially harmful conditions (*e.g.*, increasing the chance of ship-strike) or may serve as an avoidance response that enhances survivorship. The impact of a variation in diving resulting from an acoustic exposure depends on what the animal is doing at the time of the exposure and the type and magnitude of the response.

Nowacek *et al.* (2004) reported disruptions of dive behaviors in foraging North Atlantic right whales when exposed to an alerting stimulus, an action, they noted, that could lead to an increased likelihood of ship strike. However, the whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics in producing a behavioral reaction. Conversely, Indo-Pacific humpback dolphins have been observed to dive for longer periods of time in areas where vessels were present and/or approaching (Ng and Leung, 2003). In both of these studies, the influence of the sound exposure cannot be decoupled from the physical presence of a surface vessel, thus complicating

interpretations of the relative contribution of each stimulus to the response. Indeed, the presence of surface vessels, their approach and speed of approach, seemed to be significant factors in the response of the Indo-Pacific humpback dolphins (Ng and Leung, 2003). Low frequency signals of the Acoustic Thermometry of Ocean Climate (ATOC) sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000) or to overtly affect elephant seal dives (Costa *et al.*, 2003). They did, however, produce subtle effects that varied in direction and degree among the individual seals, illustrating the equivocal nature of behavioral effects and consequent difficulty in defining and predicting them.

Due to past incidents of beaked whale strandings associated with MFAS operations, feedback paths are provided between avoidance and diving and indirect tissue effects. This feedback accounts for the hypothesis that variations in diving behavior and/or avoidance responses can possibly result in nitrogen tissue supersaturation and nitrogen off-gassing, possibly to the point of deleterious vascular bubble formation (Jepson *et al.*, 2003).

Foraging—Disruption of feeding behavior can be difficult to correlate with anthropogenic sound exposure, so it is usually inferred by observed displacement from known foraging areas, the appearance of secondary indicators (e.g., bubble nets or sediment plumes), or changes in dive behavior. Noise from seismic surveys was not found to impact the feeding behavior in western grey whales off the coast of Russia (Yazvenko *et al.*, 2007) and sperm whales engaged in foraging dives did not abandon dives when exposed to distant signatures of seismic airguns (Madsen *et al.*, 2006). Balaenopterid whales exposed to moderate low-frequency signals similar to the ATOC sound source demonstrated no variation in foraging activity (Croll *et al.*, 2001), whereas five out of six North Atlantic right whales exposed to an acoustic alarm interrupted their foraging dives (Nowacek *et al.*, 2004). Although the received sound pressure level at the animals was similar in the latter two studies, the frequency, duration, and temporal pattern of signal presentation were different. These factors, as well as differences in species sensitivity, are likely contributing factors to the differential response. A determination of whether foraging disruptions incur fitness consequences will require information on or estimates of the energetic requirements of the

individuals and the relationship between prey availability, foraging effort and success, and the life history stage of the animal.

Breathing—Variations in respiration naturally vary with different behaviors and variations in respiration rate as a function of acoustic exposure can be expected to co-occur with other behavioral reactions, such as a flight response or an alteration in diving. However, respiration rates in and of themselves may be representative of annoyance or an acute stress response. Mean exhalation rates of gray whales at rest and while diving were found to be unaffected by seismic surveys conducted adjacent to the whale feeding grounds (Gailey *et al.*, 2007). Studies with captive harbor porpoises showed increased respiration rates upon introduction of acoustic alarms (Kastelein *et al.*, 2001; Kastelein *et al.*, 2006a) and emissions for underwater data transmission (Kastelein *et al.*, 2005). However, exposure of the same acoustic alarm to a striped dolphin under the same conditions did not elicit a response (Kastelein *et al.*, 2006a), again highlighting the importance in understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Social relationships—Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Disruption of social relationships therefore depends on the disruption of other behaviors (e.g., caused avoidance, masking, etc.) and no specific overview is provided here. However, social disruptions must be considered in context of the relationships that are affected. Long-term disruptions of mother/calf pairs or mating displays have the potential to affect the growth and survival or reproductive effort/success of individuals, respectively.

Vocalizations (also see Masking Section)—Vocal changes in response to anthropogenic noise can occur across the repertoire of sound production modes used by marine mammals, such as whistling, echolocation click production, calling, and singing. Changes may result in response to a need to compete with an increase in background noise or may reflect an increased vigilance or startle response. For example, in the presence of low-frequency active sonar, humpback whales have been observed to increase the length of their “songs” (Miller *et al.*, 2000; Fristrup *et al.*, 2003), possibly due to the overlap in frequencies between

the whale song and the low-frequency active sonar. A similar compensatory effect for the presence of low frequency vessel noise has been suggested for right whales; right whales have been observed to shift the frequency content of their calls upward while reducing the rate of calling in areas of increased anthropogenic noise (Parks *et al.*, 2007). Killer whales off the northwestern coast of the United States have been observed to increase the duration of primary calls once a threshold in observing vessel density (e.g., whale watching) was reached, which has been suggested as a response to increased masking noise produced by the vessels (Foote *et al.*, 2004). In contrast, both sperm and pilot whales potentially ceased sound production during the Heard Island feasibility test (Bowles *et al.*, 1994), although it cannot be absolutely determined whether the inability to acoustically detect the animals was due to the cessation of sound production or the displacement of animals from the area.

Avoidance—Avoidance is the displacement of an individual from an area as a result of the presence of a sound. Richardson *et al.* (1995) noted that avoidance reactions are the most obvious manifestations of disturbance in marine mammals. It is qualitatively different from the flight response, but also differs in the magnitude of the response (i.e., directed movement, rate of travel, etc.). Oftentimes avoidance is temporary, and animals return to the area once the noise has ceased. Longer term displacement is possible, however, which can lead to changes in abundance or distribution patterns of the species in the affected region if they do not become acclimated to the presence of the sound (Blackwell *et al.*, 2004; Bejder *et al.*, 2006; Teilmann *et al.*, 2006). Acute avoidance responses have been observed in captive porpoises and pinnipeds exposed to a number of different sound sources (Kastelein *et al.*, 2001; Finneran *et al.*, 2003; Kastelein *et al.*, 2006a; Kastelein *et al.*, 2006b). Short term avoidance of seismic surveys, low frequency emissions, and acoustic deterrents have also been noted in wild populations of odontocetes (Bowles *et al.*, 1994; Goold, 1996; 1998; Stone *et al.*, 2000; Morton and Symonds, 2002) and to some extent in mysticetes (Gailey *et al.*, 2007), while longer term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to be due to the presence of chronic vessel noise (Haviland-Howell *et al.*, 2007; Miksis-Olds *et al.*, 2007).

Orientation—A shift in an animal's resting state or an attentional change via

an orienting response represent behaviors that would be considered mild disruptions if occurring alone. As previously mentioned, the responses may co-occur with other behaviors; for instance, an animal may initially orient toward a sound source, and then move away from it. Thus, any orienting response should be considered in context of other reactions that may occur.

There are few empirical studies of avoidance responses of free-living cetaceans to mid-frequency active sonars. Much more information is available on the avoidance responses of free-living cetaceans to other acoustic sources, such as seismic airguns and low frequency active sonar, than mid-frequency active sonar.

Behavioral Responses (Southall et al. (2007))

Southall *et al.* (2007) reports the results of the efforts of a panel of experts in acoustic research from behavioral, physiological, and physical disciplines that convened and reviewed the available literature on marine mammal hearing and physiological and behavioral responses to human-made sound with the goal of proposing exposure criteria for certain effects. This peer-reviewed compilation of literature is very valuable, though Southall *et al.* (2007) note that not all data are equal, some have poor statistical power, insufficient controls, and/or limited information on received levels, background noise, and other potentially important contextual variables—such data were reviewed and sometimes used for qualitative illustration but were not included in the quantitative analysis for the criteria recommendations. All of the studies considered, however, contain an estimate of the received sound level when the animal exhibited the indicated response.

In the Southall *et al.* (2007) publication, for the purposes of analyzing responses of marine mammals to anthropogenic sound and developing criteria, the authors differentiate between single pulse sounds, multiple pulse sounds, and non-pulse sounds. MFAS/HFAS is considered a non-pulse sound. Southall *et al.* (2007) summarize the studies associated with low-frequency, mid-frequency, and high-frequency cetacean and pinniped responses to non-pulse sounds, based strictly on received level, in Appendix C of their article (incorporated by reference and summarized in the three paragraphs below).

The studies that address responses of low frequency cetaceans to non-pulse sounds include data gathered in the

field and related to several types of sound sources (of varying similarity to MFAS/HFAS) including: vessel noise, drilling and machinery playback, low-frequency M-sequences (sine wave with multiple phase reversals) playback, tactical low-frequency active sonar playback, drill ships, Acoustic Thermometry of Ocean Climate (ATOC) source, and non-pulse playbacks. These studies generally indicate no (or very limited) responses to received levels in the 90 to 120 dB re: 1μPa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB range. As mentioned earlier, though, contextual variables play a very important role in the reported responses and the severity of effects are not linear when compared to the received level. Also, few of the laboratory or field datasets had common conditions, behavioral contexts or sound sources, so it is not surprising that responses differ.

The studies that address responses of mid-frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MFAS, and non-pulse bands and tones. Southall *et al.* (2007) were unable to come to a clear conclusion regarding the results of these studies. In some cases, animals in the field showed significant responses to received levels between 90 and 120 dB, while in other cases these responses were not seen in the 120 to 150 dB range. The disparity in results was likely due to contextual variation and the differences between the results in the field and laboratory data (animals typically responded at lower levels in the field).

The studies that address responses of high frequency cetaceans to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: pingers, AHDs, and various laboratory non-pulse sounds. All of these data were collected from harbor porpoises. Southall *et al.* (2007) concluded that the existing data indicate that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (~90–120 dB), at least for initial exposures. All recorded exposures above 140 dB induced profound and sustained avoidance behavior in wild harbor porpoises (Southall *et al.*, 2007). Rapid habituation was noted in some but not all studies. The Pacific harbor

porpoise, however, does not normally occur within Southern California south of Point Conception, and would therefore, not be exposed to Navy activities covered by this proposed rule. There is no data to indicate whether other high frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises are.

The studies that address the responses of pinnipeds in water to non-pulse sounds include data gathered both in the field and the laboratory and related to several different sound sources (of varying similarity to MFAS/HFAS) including: AHDs, ATOC, various non-pulse sounds used in underwater data communication; underwater drilling, and construction noise. Few studies exist with enough information to include them in the analysis. The limited data suggested that exposures to non-pulse sounds between 90 and 140 dB generally do not result in strong behavioral responses in pinnipeds in water, but no data exist at higher received levels.

In addition to summarizing the available data, the authors of Southall *et al.* (2007) developed a severity scaling system with the intent of ultimately being able to assign some level of biological significance to a response. Following is a summary of their scoring system, a comprehensive list of the behaviors associated with each score may be found in the report:

- 0–3 (Minor and/or brief behaviors) includes, but is not limited to: No response; minor changes in speed or locomotion (but with no avoidance); individual alert behavior; minor cessation in vocal behavior; minor changes in response to trained behaviors (in laboratory)
- 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival) includes, but is not limited to: Moderate changes in speed, direction, or dive profile; brief shift in group distribution; prolonged cessation or modification of vocal behavior (duration > duration of sound), minor or moderate individual and/or group avoidance of sound; brief cessation of reproductive behavior; or refusal to initiate trained tasks (in laboratory)
- 7–9 (Behaviors considered likely to affect the aforementioned vital rates) includes, but is not limited to: Extensive or prolonged aggressive behavior; moderate, prolonged or significant separation of females and dependent offspring with disruption of acoustic reunion mechanisms; long-term avoidance of an area; outright panic, stampede, stranding; threatening or attacking sound source (in laboratory)

In Table 5 we have summarized the scores that Southall *et al.* (2007) assigned to the papers that reported behavioral responses of low-frequency cetaceans, mid-frequency cetaceans, and

pinnipeds in water to non-pulse sounds. This table is included simply to summarize the findings of the studies and opportunistic observations (all of which were capable of estimating

received level) that Southall *et al.* (2007) compiled in the effort to develop acoustic criteria.

Response Score	Received RMS Sound Pressure Level (dB re: 1 μ Pa)											
	80 to < 90	90 to < 100	100 to < 110	110 to < 120	120 to < 130	130 to < 140	140 to < 150	150 to < 160	160 to < 170	170 to < 180	180 to < 190	190 to < 200
9												
8		M	M		M		M				M	M
7						L	L					
6	H	L/H	L/P/H	L/M/H	L/M/H	L	L/H	H	M/H	M		
5			H	H	M							
4				L/M	L/M/P	P	L					
3		M	L/M	L/M	M/P	P						
2			L	L/M	L	L	L					
1			M	M	M							
0	L/H/P	L/H/P	L/M/H	L/M/H/P	L/M/H/P	L	M				M	M

Table 5. Data compiled from three tables from Southall *et al.* (2007) indicating when marine mammals (low-frequency cetaceans = L, mid-frequency cetaceans = M, high frequency cetaceans = H, and pinnipeds = P) were reported as having a behavioral response of the indicated severity to a non-pulse sound of the indicated received level. As discussed in the text, responses are highly variable and context specific.

Potential Effects of Behavioral Disturbance

The different ways that marine mammals respond to sound are sometimes indicators of the ultimate effect that exposure to a given stimulus will have on the well-being (survival, reproduction, etc.) of an animal. There is little marine mammal data quantitatively relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exists for terrestrial species to which we can draw comparisons for marine mammals.

Attention is the cognitive process of selectively concentrating on one aspect of an animal's environment while ignoring other things (Posner, 1994). Because animals (including humans) have limited cognitive resources, there is a limit to how much sensory information they can process at any time. The phenomenon called "attentional capture" occurs when a stimulus (usually a stimulus that an animal is not concentrating on or attending to) "captures" an animal's attention. This shift in attention can occur consciously or unconsciously (for example, when an animal hears sounds that it associates with the approach of a predator) and the shift in attention can be sudden (Dukas, 2002; van Rij, 2007). Once a stimulus has captured an animal's attention, the animal can respond by ignoring the stimulus, assuming a "watch and wait" posture, or treat the stimulus as a disturbance

and respond accordingly, which includes scanning for the source of the stimulus or "vigilance" (Cowlshaw *et al.*, 2004).

Vigilance is normally an adaptive behavior that helps animals determine the presence or absence of predators, assess their distance from conspecifics, or to attend cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, however, vigilance has a cost of time: When animals focus their attention on specific environmental cues, they are not attending to other activities such as foraging. These costs have been documented best in foraging animals, where vigilance has been shown to substantially reduce feeding rates (Saino, 1994; Beauchamp and Livoreil, 1997; Fritz *et al.*, 2002).

Animals will spend more time being vigilant, which may translate to less time foraging or resting, when disturbance stimuli approach them more directly, remain at closer distances, have a greater group size (for example, multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (for example, when they are giving birth or accompanied by a calf). Most of the published literature, however, suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. For example, bighorn sheep and Dall's sheep dedicated more time to being vigilant, and less time resting or foraging, when aircraft made

direct approaches over them (Frid, 2001; Stockwell *et al.*, 1991).

Several authors have established that long-term and intense disturbance stimuli can cause population declines by reducing the body condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.*, 1996; Madsen, 1994; White, 1983). For example, Madsen (1994) reported that pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success rate compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17-percent reproductive success rate. Similar reductions in reproductive success have been reported for mule deer (*Odocoileus hemionus*) disturbed by all-terrain vehicles (Yarmoloy *et al.*, 1988), caribou disturbed by seismic exploration blasts (Bradshaw *et al.*, 1998), caribou disturbed by low-elevation military jet-fights (Luick *et al.*, 1996), and caribou disturbed by low-elevation jet flights (Harrington and Veitch, 1992). Similarly, a study of elk (*Cervus elaphus*) that were disturbed experimentally by pedestrians concluded that the ratio of young to mothers was inversely related to disturbance rate (Phillips and Alldredge, 2000).

The primary mechanism by which increased vigilance and disturbance

appear to affect the fitness of individual animals is by disrupting an animal's time budget and, as a result, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand). For example, a study of grizzly bears (*Ursus horribilis*) reported that bears disturbed by hikers reduced their energy intake by an average of 12 kcal/min (50.2×10^3 kJ/min), and spent energy fleeing or acting aggressively toward hikers (White *et al.*, 1999). Alternately, Ridgway *et al.* (2006) reported that increased vigilance in bottlenose dolphins exposed to sound over a five day period did not cause any sleep deprivation or stress effects such as changes in cortisol or epinephrine levels.

On a related note, many animals perform vital functions, such as feeding, resting, traveling, and socializing, on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

Stranding and Mortality

When a live or dead marine mammal swims or floats onto shore and becomes "beached" or incapable of returning to sea, the event is termed a "stranding" (Geraci *et al.*, 1999; Perrin and Geraci, 2002; Geraci and Lounsbury, 2005; National Marine Fisheries Service, 2007p). The legal definition for a stranding within the United States is that (A) "a marine mammal is dead and is (i) on a beach or shore of the United States; or (ii) in waters under the jurisdiction of the United States (including any navigable waters); or (B) a marine mammal is alive and is (i) on a beach or shore of the United States and is unable to return to the water; (ii) on a beach or shore of the United States and, although able to return to the water, is in need of apparent medical attention; or (iii) in the waters under the jurisdiction of the United States (including any navigable waters), but is unable to return to its natural habitat under its own power or without assistance." (16 U.S.C. 1421h).

Marine mammals are known to strand for a variety of reasons, such as infectious agents, biotoxins, starvation, fishery interaction, ship strike, unusual oceanographic or

weather events, sound exposure, or combinations of these stressors sustained concurrently or in series. However, the cause or causes of most strandings are unknown (Geraci *et al.*, 1976; Eaton, 1979; Odell *et al.*, 1980; Best, 1982). Numerous studies suggest that the physiology, behavior, habitat relationships, age, or condition of cetaceans may cause them to strand or might pre-dispose them to strand when exposed to another phenomenon. These suggestions are consistent with the conclusions of numerous other studies that have demonstrated that combinations of dissimilar stressors commonly combine to kill an animal or dramatically reduce its fitness, even though one exposure without the other does not produce the same result (Chroussos, 2000; Creel, 2005; DeVries *et al.*, 2003; Fair and Becker, 2000; Foley *et al.*, 2001; Moberg, 2000; Relyea, 2005a; 2005b, Romero, 2004; Sih *et al.*, 2004).

Several sources have published lists of mass stranding events of cetaceans during attempts to identify relationships between those stranding events and military active sonar (Hildebrand, 2004; IWC, 2005; Taylor *et al.*, 2004). For example, based on a review of stranding records between 1960 and 1995, the International Whaling Commission (2005) identified ten mass stranding events of Cuvier's beaked whales that had been reported and one mass stranding of four Baird's beaked whales (*Berardius bairdii*). The IWC concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, seven had been coincident with the use of MFAS, one of those seven had been associated with the use of tactical low-frequency sonar, and the remaining stranding event had been associated with the use of seismic airguns.

Most of the stranding events reviewed by the International Whaling Commission involved beaked whales. A mass stranding of Cuvier's beaked whales in the eastern Mediterranean Sea occurred in 1996 (Frantzis, 1998) and mass stranding events involving Gervais' beaked whales, Blainville's beaked whales, and Cuvier's beaked whales occurred off the coast of the Canary Islands in the late 1980s (Simmonds and Lopez-Jurado, 1991). The stranding events that occurred in the Canary Islands and Kyparissiakos Gulf in the late 1990s and the Bahamas in 2000 have been the most intensively studied mass stranding events and have been associated with naval maneuvers involving the use of MFAS.

Between 1960 and 2006, 48 strandings (68 percent) involved beaked whales, 3

(4 percent) involved dolphins, and 14 (20 percent) involved whale species. Cuvier's beaked whales were involved in the greatest number of these events (48 or 68 percent), followed by sperm whales (7 or 10 percent), and Blainville's and Gervais' beaked whales (4 each or 6 percent). Naval activities that might have involved active sonar are reported to have coincided with 9 (13 percent) or 10 (14 percent) of those stranding events. Between the mid-1980s and 2003 (the period reported by the International Whaling Commission), we identified reports of 44 mass cetacean stranding events of which at least 7 were coincident with naval exercises that were using mid-frequency sonar.

Strandings Associated With MFAS

Over the past 12 years, there have been five stranding events coincident with military mid-frequency active sonar use in which exposure to sonar is believed to have been a contributing factor: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). A number of other stranding events coincident with the operation of MFAS including the death of beaked whales or other species (minke whales, dwarf sperm whales, pilot whales) have been reported, however, the majority have not been investigated to the degree necessary to determine the cause of the stranding.

Greece (1996)

Twelve Cuvier's beaked whales stranded atypically (in both time and space) along a 38.2-kilometer strand of the coast of the Kyparissiakos Gulf on May 12 and 13, 1996 (Frantzis, 1998). From May 11 through May 15, the NATO research vessel Alliance was conducting active sonar tests with signals of 600 Hz and 3 kHz and source levels of 228 and 226 dB re: 1μPa, respectively (D'Amico and Verboom, 1998; D'Spain *et al.*, 2006). The timing and the location of the testing encompassed the time and location of the whale strandings (Frantzis, 1998).

Necropsies of eight of the animals were performed but were limited to basic external examination and sampling of stomach contents, blood, and skin. No ears or organs were collected, and no histological samples were preserved. No apparent abnormalities or wounds were found (Frantzis, 2004). Examination of photos of the animals, taken soon after their death, revealed that the eyes of at least four of the individuals were bleeding. Photos were taken soon after their death (Frantzis, 2004). Stomach contents contained the flesh of cephalopods,

indicating that feeding had recently taken place (Frantzis, 1998).

All available information regarding the conditions associated with this stranding event were compiled, and many potential causes were examined including major pollution events, prominent tectonic activity, unusual physical or meteorological events, magnetic anomalies, epizootics, and conventional military activities (International Council for the Exploration of the Sea, 2005a). However, none of these potential causes coincided in time or space with the mass stranding, or could explain its characteristics (International Council for the Exploration of the Sea, 2005a). The robust condition of the animals, plus the recent stomach contents, is inconsistent with pathogenic causes (Frantzis, 2004). In addition, environmental causes can be ruled out as there were no unusual environmental circumstances or events before or during this time period and within the general proximity (Frantzis, 2004).

It was determined that because of the rarity of this mass stranding of Cuvier's beaked whales in the Kyparissiakos Gulf (first one in history), the probability for the two events (the military exercises and the strandings) to coincide in time and location, while being independent of each other, was extremely low (Frantzis, 1998). However, because full necropsies had not been conducted, and no abnormalities were noted, the cause of the strandings could not be precisely determined (Cox *et al.*, 2006). The analysis of this stranding event provided support for, but no clear evidence for, the cause-and-effect relationship of active sonar training activities and beaked whale strandings (Cox *et al.*, 2006).

Bahamas (2000)

NMFS and the Navy prepared a joint report addressing the multi-species stranding in the Bahamas in 2000, which took place within 24 hours of U.S. Navy ships using MFAS as they passed through the Northeast and Northwest Providence Channels on March 15–16, 2000. The ships, which operated both AN/SQS–53C and AN/SQS–56, moved through the channel while emitting MFAS pings approximately every 24 seconds. Of the 17 cetaceans that stranded over a 36-hr period (Cuvier's beaked whales, Blainville's beaked whales, Minke whales, and a spotted dolphin), seven animals died on the beach (5 Cuvier's beaked whales, 1 Blainville's beaked whale, and the spotted dolphin), while the other 10 were returned to the water alive (though their ultimate fate is

unknown). As discussed in the Bahamas report (DOC/DON, 2001), there is no likely association between the minke whale and spotted dolphin strandings and the operation of MFAS.

Necropsies were performed on five of the stranded beaked whales. All five necropsied beaked whales were in good body condition, showing no signs of infection, disease, ship strike, blunt trauma, or fishery related injuries, and three still had food remains in their stomachs. Auditory structural damage was discovered in four of the whales, specifically bloody effusions or hemorrhaging around the ears. Bilateral intracochlear and unilateral temporal region subarachnoid hemorrhage, with blood clots in the lateral ventricles, were found in two of the whales. Three of the whales had small hemorrhages in their acoustic fats (located along the jaw and in the melon).

A comprehensive investigation was conducted and all possible causes of the stranding event were considered, whether they seemed likely at the outset or not. Based on the way in which the strandings coincided with ongoing naval activity involving tactical MFAS use, in terms of both time and geography, the nature of the physiological effects experienced by the dead animals, and the absence of any other acoustic sources, the investigation team concluded that MFAS aboard U.S. Navy ships that were in use during the active sonar exercise in question were the most plausible source of this acoustic or impulse trauma to beaked whales. This sound source was active in a complex environment that included the presence of a surface duct, unusual and steep bathymetry, a constricted channel with limited egress, intensive use of multiple, active sonar units over an extended period of time, and the presence of beaked whales that appear to be sensitive to the frequencies produced by these active sonars. The investigation team concluded that the cause of this stranding event was the confluence of the Navy MFAS and these contributory factors working together, and further recommended that the Navy avoid operating MFAS in situations where these five factors would be likely to occur. This report does not conclude that all five of these factors must be present for a stranding to occur, nor that beaked whales are the only species that could potentially be affected by the confluence of the other factors. Based on this, NMFS believes that the operation of MFAS in situations where surface ducts exist, or in marine environments defined by steep bathymetry and/or constricted channels may increase the likelihood of producing a sound field

with the potential to cause cetaceans (especially beaked whales) to strand, and therefore, suggests the need for increased vigilance while operating MFAS in these areas, especially when beaked whales (or potentially other deep divers) are likely present.

Madeira, Spain (2000)

From May 10–14, 2000, three Cuvier's beaked whales were found atypically stranded on two islands in the Madeira archipelago, Portugal (Cox *et al.*, 2006). A fourth animal was reported floating in the Madeiran waters by fisherman but did not come ashore (Woods Hole Oceanographic Institution, 2005). Joint NATO amphibious training peacekeeping exercises involving participants from 17 countries' 80 warships, took place in Portugal during May 2–15, 2000.

The bodies of the three stranded whales were examined post mortem (Woods Hole Oceanographic Institution, 2005), though only one of the stranded whales was fresh enough (24 hours after stranding) to be necropsied (Cox *et al.*, 2006). Results from the necropsy revealed evidence of hemorrhage and congestion in the right lung and both kidneys (Cox *et al.*, 2006). There was also evidence of intercochlear and intracranial hemorrhage similar to that which was observed in the whales that stranded in the Bahamas event (Cox *et al.*, 2006). There were no signs of blunt trauma, and no major fractures (Woods Hole Oceanographic Institution, 2005). The cranial sinuses and airways were found to be clear with little or no fluid deposition, which may indicate good preservation of tissues (Woods Hole Oceanographic Institution, 2005).

Several observations on the Madeira stranded beaked whales, such as the pattern of injury to the auditory system, are the same as those observed in the Bahamas strandings. Blood in and around the eyes, kidney lesions, pleural hemorrhages, and congestion in the lungs are particularly consistent with the pathologies from the whales stranded in the Bahamas, and are consistent with stress and pressure related trauma. The similarities in pathology and stranding patterns between these two events suggest that a similar pressure event may have precipitated or contributed to the strandings at both sites (Woods Hole Oceanographic Institution, 2005).

Even though no definitive causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004):

Exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 (1,000–6,000 m) fathoms occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships were operating around Madeira, though it is not known if MFAS was used, and the specifics of the sound sources used are unknown (Cox *et al.*, 2006, Freitas, 2004); exercises took place in an area surrounded by landmasses separated by less than 35 nm (65 km) and at least 10 nm (19 km) in length, or in an embayment. Exercises involving multiple ships employing MFAS near land may produce sound directed towards a channel or embayment that may cut off the lines of egress for marine mammals (Freitas, 2004).

Canary Islands, Spain (2002)

The southeastern area within the Canary Islands is well known for aggregations of beaked whales due to its ocean depths of greater than 547 fathoms (1,000 m) within a few hundred meters of the coastline (Fernandez *et al.*, 2005). On September 24, 2002, 14 beaked whales were found stranded on Fuerteventura and Lanzarote Islands in the Canary Islands (International Council for Exploration of the Sea, 2005a). Seven whales died, while the remaining seven live whales were returned to deeper waters (Fernandez *et al.*, 2005). Four beaked whales were found stranded dead over the next 3 days either on the coast or floating offshore. These strandings occurred within near proximity of an international naval exercise that utilized MFAS and involved numerous surface warships and several submarines. Strandings began about 4 hours after the onset of MFAS activity (International Council for Exploration of the Sea, 2005a; Fernandez *et al.*, 2005).

Eight Cuvier's beaked whales, one Blainville's beaked whale, and one Gervais' beaked whale were necropsied, six of them within 12 hours of stranding (Fernandez *et al.*, 2005). No pathogenic bacteria were isolated from the carcasses (Jepson *et al.*, 2003). The animals displayed severe vascular congestion and hemorrhage especially around the tissues in the jaw, ears, brain, and kidneys, displaying marked disseminated microvascular hemorrhages associated with widespread fat emboli (Jepson *et al.*, 2003; International Council for Exploration of the Sea, 2005a). Several organs contained intravascular bubbles, although definitive evidence of gas embolism in vivo is difficult to

determine after death (Jepson *et al.*, 2003). The livers of the necropsied animals were the most consistently affected organ, which contained macroscopic gas-filled cavities and had variable degrees of fibrotic encapsulation. In some animals, cavitory lesions had extensively replaced the normal tissue (Jepson *et al.*, 2003). Stomachs contained a large amount of fresh and undigested contents, suggesting a rapid onset of disease and death (Fernandez *et al.*, 2005). Head and neck lymph nodes were enlarged and congested, and parasites were found in the kidneys of all animals (Fernandez *et al.*, 2005).

The association of NATO MFAS use close in space and time to the beaked whale strandings, and the similarity between this stranding event and previous beaked whale mass strandings coincident with active sonar use, suggests that a similar scenario and causative mechanism of stranding may be shared between the events. Beaked whales stranded in this event demonstrated brain and auditory system injuries, hemorrhages, and congestion in multiple organs, similar to the pathological findings of the Bahamas and Madeira stranding events. In addition, the necropsy results of Canary Islands stranding event lead to the hypothesis that the presence of disseminated and widespread gas bubbles and fat emboli were indicative of nitrogen bubble formation, similar to what might be expected in decompression sickness (Jepson *et al.*, 2003; Fernandez *et al.*, 2005).

Spain (2006)

The Spanish Cetacean Society reported an atypical mass stranding of four beaked whales that occurred January 26, 2006, on the southeast coast of Spain, near Mojacar (Gulf of Vera) in the Western Mediterranean Sea. According to the report, two of the whales were discovered the evening of January 26 and were found to be still alive. Two other whales were discovered during the day on January 27, but had already died. The fourth animal was found dead on the afternoon of January 27, a few kilometers north of the first three animals. From January 25–26, 2006, Standing North Atlantic Treaty Organization (NATO) Response Force Maritime Group Two (five of seven ships including one U.S. ship under NATO Operational Control) had conducted active sonar training against a Spanish submarine within 50 nm (93 km) of the stranding site.

Veterinary pathologists necropsied the two male and two female Cuvier's beaked whales. According to the

pathologists, the most likely primary cause of this type of beaked whale mass stranding event was anthropogenic acoustic activities, most probably anti-submarine MFAS used during the military naval exercises. However, no positive acoustic link was established as a direct cause of the stranding. Even though no causal link can be made between the stranding event and naval exercises, certain conditions may have existed in the exercise area that, in their aggregate, may have contributed to the marine mammal strandings (Freitas, 2004): exercises were conducted in areas of at least 547 fathoms (1,000 m) depth near a shoreline where there is a rapid change in bathymetry on the order of 547 to 3,281 fathoms (1,000–6,000 m) occurring across a relatively short horizontal distance (Freitas, 2004); multiple ships (in this instance, five) were operating MFAS in the same area over extended periods of time (in this case, 20 hours) in close proximity; Exercises took place in an area surrounded by landmasses, or in an embayment. Exercises involving multiple ships employing MFAS near land may have produced sound directed towards a channel or embayment that may have cut off the lines of egress for the affected marine mammals (Freitas, 2004).

Association Between Mass Stranding Events and Exposure to MFAS

Several authors have noted similarities between some of these stranding incidents: they occurred in islands or archipelagoes with deep water nearby, several appeared to have been associated with acoustic waveguides like surface ducting, and the sound fields created by ships transmitting MFAS (Cox *et al.*, 2006, D'Spain *et al.*, 2006). Although Cuvier's beaked whales have been the most common species involved in these stranding events (81 percent of the total number of stranded animals), other beaked whales (including *Mesoplodon europaeus*, *M. densirostris*, and *Hyperoodon ampullatus*) comprise 14 percent of the total. Other species (*Stenella coeruleoalba*, *Kogia breviceps* and *Balaenoptera acutorostrata*) have stranded, but in much lower numbers and less consistently than beaked whales.

Based on the evidence available, however, we cannot determine whether (a) Cuvier's beaked whale is more prone to injury from high-intensity sound than other species, (b) their behavioral responses to sound makes them more likely to strand, or (c) they are more likely to be exposed to MFAS than other cetaceans (for reasons that remain

unknown). Because the association between active sonar exposures and marine mammals mass stranding events is not consistent—some marine mammals strand without being exposed to active sonar and some sonar transmissions are not associated with marine mammal stranding events despite their co-occurrence—other risk factors or a grouping of risk factors probably contribute to these stranding events.

Behaviorally Mediated Responses to MFAS That May Lead to Stranding

Although the confluence of Navy MFAS with the other contributory factors noted in the report was identified as the cause of the 2000 Bahamas stranding event, the specific mechanisms that led to that stranding (or the others) are not understood, and there is uncertainty regarding the ordering of effects that led to the stranding. It is unclear whether beaked whales were directly injured by sound (acoustically mediated bubble growth, addressed above) prior to stranding or whether a behavioral response to sound occurred that ultimately caused the beaked whales to be injured and to strand.

Although causal relationships between beaked whale stranding events and active sonar remain unknown, several authors have hypothesized that stranding events involving these species in the Bahamas and Canary Islands may have been triggered when the whales changed their dive behavior in a startled response to exposure to active sonar or to further avoid exposure (Cox *et al.*, 2006; Rommel *et al.*, 2006). These authors proposed three mechanisms by which the behavioral responses of beaked whales upon being exposed to active sonar might result in a stranding event. These include: gas bubble formation caused by excessively fast surfacing; remaining at the surface too long when tissues are supersaturated with nitrogen; or diving prematurely when extended time at the surface is necessary to eliminate excess nitrogen. More specifically, beaked whales that occur in deep waters that are in close proximity to shallow waters (for example, the “canyon areas” that are cited in the Bahamas stranding event; see D’Spain and D’Amico, 2006), may respond to active sonar by swimming into shallow waters to avoid further exposures and strand if they were not able to swim back to deeper waters. Second, beaked whales exposed to active sonar might alter their dive behavior. Changes in their dive behavior might cause them to remain at the surface or at depth for extended periods

of time which could lead to hypoxia directly by increasing their oxygen demands or indirectly by increasing their energy expenditures (to remain at depth) and increase their oxygen demands as a result. If beaked whales are at depth when they detect a ping from an active sonar transmission and change their dive profile, this could lead to the formation of significant gas bubbles, which could damage multiple organs or interfere with normal physiological function (Cox *et al.*, 2006; Rommel *et al.*, 2006; Zimmer and Tyack, 2007). Baird *et al.* (2005) found that slow ascent rates from deep dives and long periods of time spent within 50 m of the surface were typical for both Cuvier’s and Blainville’s beaked whales, the two species involved in mass strandings related to naval MFAS. These two behavioral mechanisms may be necessary to purge excessive dissolved nitrogen concentrated in their tissues during their frequent long dives (Baird *et al.*, 2005). Baird *et al.* (2005) further suggests that abnormally rapid ascents or premature dives in response to high-intensity active sonar could indirectly result in physical harm to the beaked whales, through the mechanisms described above (gas bubble formation or non-elimination of excess nitrogen).

Because many species of marine mammals make repetitive and prolonged dives to great depths, it has long been assumed that marine mammals have evolved physiological mechanisms to protect against the effects of rapid and repeated decompressions. Although several investigators have identified physiological adaptations that may protect marine mammals against nitrogen gas supersaturation (alveolar collapse and elective circulation; Kooyman *et al.*, 1972; Ridgway and Howard, 1979), Ridgway and Howard (1979) reported that bottlenose dolphins (*Tursiops truncatus*) that were trained to dive repeatedly had muscle tissues that were substantially supersaturated with nitrogen gas. Houser *et al.* (2001) used these data to model the accumulation of nitrogen gas within the muscle tissue of other marine mammal species and concluded that cetaceans that dive deep and have slow ascent or descent speeds would have tissues that are more supersaturated with nitrogen gas than other marine mammals. Based on these data, Cox *et al.* (2006) hypothesized that a critical dive sequence might make beaked whales more prone to stranding in response to acoustic exposures. The sequence began with (1) very deep (to depths of up to 2 kilometers) and long (as long as 90 minutes) foraging dives

with (2) relatively slow, controlled ascents, followed by (3) a series of “bounce” dives between 100 and 400 meters in depth (also see Zimmer and Tyack, 2007). They concluded that acoustic exposures that disrupted any part of this dive sequence (for example, causing beaked whales to spend more time at surface without the bounce dives that are necessary to recover from the deep dive) could produce excessive levels of nitrogen supersaturation in their tissues, leading to gas bubble and emboli formation that produces pathologies similar to decompression sickness.

Recently, Zimmer and Tyack (2007) modeled nitrogen tension and bubble growth in several tissue compartments for several hypothetical dive profiles and concluded that repetitive shallow dives (defined as a dive where depth does not exceed the depth of alveolar collapse, approximately 72 m for *Ziphius*), perhaps as a consequence of an extended avoidance reaction to active sonar sound, could pose a risk for decompression sickness and that this risk should increase with the duration of the response. Their models also suggested that unrealistically rapid ascent rates of ascent from normal dive behaviors are unlikely to result in supersaturation to the extent that bubble formation would be expected. Tyack *et al.* (2006) suggested that emboli observed in animals exposed to MFAS (Jepson *et al.*, 2003; Fernandez *et al.*, 2005) could stem from a behavioral response that involves repeated dives shallower than the depth of lung collapse. Given that nitrogen gas accumulation is a passive process (i.e., nitrogen is metabolically inert), a bottlenose dolphin was trained to repetitively dive a profile predicted to elevate nitrogen saturation to the point that nitrogen bubble formation was predicted to occur. However, inspection of the vascular system of the dolphin via ultrasound did not demonstrate the formation of asymptomatic nitrogen gas bubbles (Houser *et al.*, 2007). Baird *et al.* (2008), in a beaked whale tagging study off Hawaii, showed that deep dives are equally common during day or night, but “bounce dives” are typically a daytime behavior, possibly associated with visual predator avoidance (Baird *et al.* 2008). This may indicate that “bounce dives” are associated with something other than behavioral regulation of dissolved nitrogen levels, which would be necessary day and night.

If marine mammals respond to a Navy vessel that is transmitting active sonar in the same way that they might respond to a predator, their probability

of flight responses should increase when they perceive that Navy vessels are approaching them directly, because a direct approach may convey detection and intent to capture (Burger and Gochfeld, 1981, 1990; Cooper, 1997, 1998). The probability of flight responses should also increase as received levels of active sonar increase (and the ship is, therefore, closer) and as ship speeds increase (that is, as approach speeds increase). For example, the probability of flight responses in Dall's sheep (*Ovis dalli dalli*) (Frid 2001a, b), ringed seals (*Phoca hispida*) (Born *et al.*, 1999), Pacific brant (*Branta bernic nigricans*) and Canada geese (*B. canadensis*) increased as a helicopter or fixed-wing aircraft approached groups of these animals more directly (Ward *et al.*, 1999). Bald eagles (*Haliaeetus leucocephalus*) perched on trees alongside a river were also more likely to flee from a paddle raft when their perches were closer to the river or were closer to the ground (Steidl and Anthony, 1996).

Despite the many theories involving bubble formation (both as a direct cause of injury (see Acoustically Mediated Bubble Growth Section) and an indirect cause of stranding (See Behaviorally Mediated Bubble Growth Section)), Southall *et al.* (2007) summarizes that there is either scientific disagreement or a lack of information regarding each of the following important points: (1) Received acoustical exposure conditions for animals involved in stranding events; (2) pathological interpretation of observed lesions in stranded marine mammals; (3) acoustic exposure conditions required to induce such physical trauma directly; (4) whether noise exposure may cause behavioral reactions (such as atypical diving behavior) that secondarily cause bubble formation and tissue damage; and (5) the extent the post mortem artifacts introduced by decomposition before sampling, handling, freezing, or necropsy procedures affect interpretation of observed lesions.

During SOCAL exercises there will be use of multiple sonar units in areas where seven species of beaked whale species may be present. A surface duct may be seasonally present in a limited area for a limited period of time. Some exercises will occur in areas of high bathymetric relief. However, none of the training events will take place in a location having a constricted channel less than 35 miles wide or with limited egress similar to the Bahamas (because none exist in the SOCAL Range Complex). Consequently, not all five of the environmental factors believed to contribute to the Bahamas stranding

(mid-frequency active sonar, beaked whale presence, surface ducts, steep bathymetry, and constricted channels with limited egress) will be present during SOCAL exercises. However, as mentioned previously, NMFS recommends caution when steep bathymetry, surface ducting conditions, or a constricted channel is present when mid-frequency active sonar is employed and cetaceans (especially beaked whales) are present.

Exposure to Underwater Detonation of Explosives

Some of the Navy's training exercises include the underwater detonation of explosives. For many of the exercises discussed, inert ordnance is used for a subset of the exercises. For exercises that involve "shooting" at a target that is above the surface of the water, underwater explosions only occur when the target is missed, which is the minority of the time (the Navy has historical hit/miss ratios and uses them in their exposure estimates). The underwater explosion from a weapon would send a shock wave and blast noise through the water, release gaseous by-products, create an oscillating bubble, and cause a plume of water to shoot up from the water surface. The shock wave and blast noise are of most concern to marine animals. Depending on the intensity of the shock wave and size, location, and depth of the animal, an animal can be injured, killed, suffer non-lethal physical effects, experience hearing related effects with or without behavioral responses, or exhibit temporary behavioral responses or tolerance from hearing the blast sound. Generally, exposures to higher levels of impulse and pressure levels would result in worse impacts to an individual animal.

Injuries resulting from a shock wave take place at boundaries between tissues of different density. Different velocities are imparted to tissues of different densities, and this can lead to their physical disruption. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000). Gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill, 1978; Yelverton *et al.*, 1973). In addition, gas-containing organs including the nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Intestinal walls can bruise or rupture, with subsequent hemorrhage and escape of gut contents into the body cavity. Less severe gastrointestinal tract injuries include

contusions, petechiae (small red or purple spots caused by bleeding in the skin), and slight hemorrhaging (Yelverton *et al.*, 1973).

Because the ears are the most sensitive to pressure, they are the organs most sensitive to injury (Ketten, 2000). Sound-related trauma associated with blast noise can be theoretically distinct from injury from the shock wave, particularly farther from the explosion. If an animal is able to hear a noise, at some level it can fatigue or damage its hearing by causing decreased sensitivity (Ketten, 1995) (See Noise-induced Threshold Shift Section above). Sound-related trauma can be lethal or sublethal. Lethal impacts are those that result in immediate death or serious debilitation in or near an intense source and are not, technically, pure acoustic trauma (Ketten, 1995). Sublethal impacts include hearing loss, which is caused by exposures to perceptible sounds. Severe damage (from the shock wave) to the ears includes tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear. Moderate injury implies partial hearing loss due to tympanic membrane rupture and blood in the middle ear. Permanent hearing loss also can occur when the hair cells are damaged by one very loud event, as well as by prolonged exposure to a loud noise or chronic exposure to noise. The level of impact from blasts depends on both an animal's location and, at outer zones, on its sensitivity to the residual noise (Ketten, 1995).

There have been fewer studies addressing the behavioral effects of explosives on marine mammals than MFAS/HFAS. However, though the nature of the sound waves emitted from an explosion is different (in shape and rise time) from MFAS/HFAS, we still anticipate the same sorts of behavioral responses (see Exposure to MFAS/HFAS: Behavioral Disturbance Section) to result from repeated explosive detonations (a smaller range of likely less severe responses would be expected to occur as a result of exposure to a single explosive detonation).

Mitigation

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(A) of the MMPA, NMFS must set forth the "permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance." The NDAA of 2004

amended the MMPA as it relates to military-readiness activities and the incidental take authorization process such that “least practicable adverse impact” shall include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the “military readiness activity”. The training activities described in the SOCAL application are considered military readiness activities.

NMFS reviewed the proposed SOCAL activities and the proposed SOCAL mitigation measures presented in the Navy’s application to determine whether the activities and mitigation measures were capable of achieving the least practicable adverse effect on marine mammals. NMFS determined that further discussion was necessary regarding the potential relationship between the operation of MFAS/HFAS and marine mammal strandings. NMFS worked with the Navy to identify additional practicable and effective mitigation measures, which included a careful balancing of the likely benefit of any particular measure to the marine mammals with the likely effect of that measure on personnel safety, practicality of implementation, and impact on the “military-readiness activity”.

To address the concern above, NMFS and the Navy developed a comprehensive Stranding Response Plan. Included below are the mitigation measures the Navy initially proposed (see “Mitigation Measures Proposed in the Navy’s LOA Application”) and the Stranding Response Plan that NMFS and the Navy developed (see “Additional Measure Developed by NMFS and the Navy” below).

Separately, NMFS has previously received comments from the public expressing concerns regarding potential delays between when marine mammals are visually detected by watchstanders and when the active sonar is actually powered or shut down. NMFS and the Navy have discussed this issue and determined the following: Naval operators and lookouts are aware of the potential for a very small delay (up to about 4 seconds) between detecting a marine mammal and powering down or shutting down the tactical sonar and will take the actions necessary to ensure that MFAS is powered down or shut down when detected animals are within the specified powerdown or shutdown zone (for example, by preparing to shut-down when animals are approaching, so as to implement shut-down when they are within the designated distance).

Mitigation Measures Proposed in the Navy’s LOA Application

This section includes the protective measures proposed by the Navy and is taken directly from their application (with the exception of headings, which have been modified for increased clarity within the context of this proposed rule). In their proposed mitigation, the Navy has included measures to protect sea turtles—those measures are included here as part of the Navy’s proposed action. Although measures to protect sea turtles are important, they are not required by the MMPA, and therefore, will not be codified through this regulation or required in any subsequent MMPA LOA. Measures to protect sea turtles will, however, be addressed in the Endangered Species Act section 7 consultation.

General Maritime Measures for All Training at Sea

Personnel Training (for All Training Types)

The use of shipboard lookouts is a critical component of all Navy protective measures. Lookout duties require that they report all objects sighted in the water to the officer of the deck (OOD) (e.g., trash, a periscope, marine mammals, sea turtles) and all disturbances (e.g., surface disturbance, discoloration) that may be indicative of a threat to the vessel and its crew. There are personnel serving as lookouts on station at all times (day and night) when a ship or surfaced submarine is moving through the water.

- All commanding officers (COs), executive officers (XOs), lookouts, officers of the deck (OODs), junior OODs (JOODs), maritime patrol aircraft aircrews, and Anti-submarine Warfare (ASW)/Mine Warfare (MIW) helicopter crews will complete the NMFS-approved Marine Species Awareness Training (MSAT) by viewing the U.S. Navy MSAT digital versatile disk (DVD). All bridge lookouts will complete both parts one and two of the MSAT; part two is optional for other personnel. This training addresses the lookout’s role in environmental protection, laws governing the protection of marine species, Navy stewardship commitments and general observation information to aid in avoiding interactions with marine species.
- Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Education and Training Command [NAVEDTRA] 12968–D).
- Lookout training will include on-the-job instruction under the

supervision of a qualified, experienced lookout. Following successful completion of this supervised training period, lookouts will complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). Personnel being trained as lookouts can be counted among those listed below as long as supervisors monitor their progress and performance.

- Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

Operating Procedures & Collision Avoidance

- Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order will be issued to further disseminate the personnel training requirement and general marine species protective measures.

- COs will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

- While underway, surface vessels will have at least two lookouts with binoculars; surfaced submarines will have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals and sea turtles.

- On surface vessels equipped with a multi-function active sensor, pedestal mounted “Big Eye” (20 x 10) binoculars will be properly installed and in good working order to assist in the detection of marine mammals and sea turtles in the vicinity of the vessel.

- Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).

- After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).

- While in transit, naval vessels will be alert at all times, use extreme caution, and proceed at a “safe speed” so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the

prevailing circumstances and conditions.

- When whales have been sighted in the area, Navy vessels will increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and would be dictated by environmental and other conditions (e.g., safety, weather).

- Floating weeds and kelp, algal mats, clusters of seabirds, and jellyfish are good indicators of sea turtles and marine mammals. Therefore, increased vigilance in watching for sea turtles and marine mammals will be taken where these are present.

- Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties. Marine mammal detections will be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

- All vessels will maintain logs and records documenting training operations should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a major training exercise.

Measures for MFAS Operations

Personnel Training (for MFAS Operations)

- All lookouts onboard platforms involved in ASW training events will review the NMFS-approved Marine Species Awareness Training material prior to use of mid-frequency active sonar.

- All COs, XO's, and officers standing watch on the bridge will have reviewed the Marine Species Awareness Training material prior to a training event employing the use of mid-frequency active sonar.

- Navy lookouts will undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Educational Training [NAVEDTRA], 12968–D).

- Lookout training will include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful

completion of this supervised training period, lookouts will complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

- Lookouts will be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of mitigation measures if marine species are spotted.

Lookout and Watchstander Responsibilities

- On the bridge of surface ships, there will always be at least three people on watch whose duties include observing the water surface around the vessel.

- All surface ships participating in ASW training events will, in addition to the three personnel on watch noted previously, have at all times during the exercise at least two additional personnel on watch as marine mammal lookouts.

- Personnel on lookout and officers on watch on the bridge will have at least one set of binoculars available for each person to aid in the detection of marine mammals.

- On surface vessels equipped with mid-frequency active sonar, pedestal mounted "Big Eye" (20 x 110) binoculars will be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

- Personnel on lookout will employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968–D).

- After sunset and prior to sunrise, lookouts will employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

- Personnel on lookout will be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

Operating Procedures

- A Letter of Instruction, Mitigation Measures Message, or Environmental

Annex to the Operational Order will be issued prior to major exercises to further disseminate the personnel training requirement and general marine mammal mitigation measures.

- COs will make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

- All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) will monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate watch station for dissemination and appropriate action.

- During mid-frequency active sonar operations, personnel will utilize all available sensor and optical systems (such as night vision goggles) to aid in the detection of marine mammals.

- Navy aircraft participating in exercises at sea will conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

- Aircraft with deployed sonobuoys will use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.

- Marine mammal detections will be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

- Safety Zones—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within or closing to inside 1,000 yds (914 m) of the sonar dome (the bow), the ship or submarine will limit active transmission levels to at least 6 decibels (dB) below normal operating levels. (A 6 dB reduction equates to a 75 percent power reduction. The reason is that decibel levels are on a logarithmic scale, not a linear scale. Thus, a 6 dB reduction results in a power level only 25 percent of the original power.)

- Ships and submarines will continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1,829 m) beyond the location of the last detection.

- Should a marine mammal be detected within or closing to inside 500 yds (457 m) of the sonar dome, active sonar transmissions will be limited to at least 10 dB below the equipment's normal operating level. (A 10 dB reduction equates to a 90 percent power reduction from normal operating levels.) Ships and submarines will continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1,829 m) beyond the location of the last detection.

- Should the marine mammal be detected within or closing to inside 200 yds (183 m) of the sonar dome, active sonar transmissions will cease. Active sonar will not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (457 m) beyond the location of the last detection.

- Special conditions applicable for dolphin and porpoise only: If, after conducting an initial maneuver to avoid close quarters with dolphin or porpoise, the OOD concludes that dolphin or porpoise are deliberately closing to ride the vessel's bow wave, no further mitigation actions would be necessary while the dolphin or porpoise continue to exhibit bow wave riding behavior.

- If the need for power-down should arise as detailed in "Safety Zones" above, the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 dB active sonar was being operated).

- Prior to start up or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

- Active sonar levels (generally)—Navy will operate sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

- Helicopters shall observe/survey the vicinity of an ASW training event for 10 minutes before the first deployment of active (dipping) sonar in the water.

- Helicopters shall not dip their active sonar within 200 yds (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yds (183 m) of the sonar source after pinging has begun.

- Submarine sonar operators will review detection indicators of close-aboard marine mammals prior to the

commencement of ASW training events involving MFAS.

Measures for Underwater Detonations

Surface-to-Surface Gunnery (5-inch, 76 mm, 20 mm, 25 mm and 30 mm Explosive Rounds)

- Lookouts will visually survey for floating weeds and kelp, and algal mats which may be inhabited by immature sea turtles in the target area. Intended impact shall not be within 600 yds (585 m) of known or observed floating weeds and kelp, and algal mats.

- For exercises using targets towed by a vessel or aircraft, target-towing vessels/aircraft shall maintain a trained lookout for marine mammals and sea turtles. If a marine mammal or sea turtle is sighted in the vicinity, the tow aircraft/vessel will immediately notify the firing vessel, which will suspend the exercise until the area is clear.

- A 600-yard radius buffer zone will be established around the intended target.

- From the intended firing position, trained lookouts will survey the buffer zone for marine mammals and sea turtles prior to commencement and during the exercise as long as practicable. Due to the distance between the firing position and the buffer zone, lookouts are only expected to visually detect breaching whales, whale blows, and large pods of dolphins and porpoises.

- The exercise will be conducted only when the buffer zone is visible and marine mammals and sea turtles are not detected within it.

Surface-to-Surface Gunnery (Non-Explosive Rounds)

- Lookouts will visually survey for floating weeds and kelp, and algal mats which may be inhabited by immature sea turtles in the target area. Intended impact will not be within 200 yds (183 m) of known or observed floating weeds and kelp, and algal mats.

- A 200-yd (183 m) radius buffer zone will be established around the intended target.

- From the intended firing position, trained lookouts will survey the buffer zone for marine mammals and sea turtles prior to commencement and during the exercise as long as practicable. Due to the distance between the firing position and the buffer zone, lookouts are only expected to visually detect breaching whales, whale blows, and large pods of dolphins and porpoises.

- If applicable, target towing vessels will maintain a lookout. If a marine mammal or sea turtle is sighted in the

vicinity of the exercise, the tow vessel will immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

- The exercise will be conducted only when the buffer zone is visible and marine mammals and sea turtles are not detected within the target area and the buffer zone.

Surface-to-Air Gunnery (Explosive and Non-Explosive Rounds)

- Vessels will orient the geometry of gunnery exercises in order to prevent debris from falling in the area of sighted marine mammals, sea turtles, algal mats, and floating kelp.

- Vessels will expedite the recovery of any parachute deploying aerial targets to reduce the potential for entanglement of marine mammals and sea turtles.

- Target towing aircraft shall maintain a lookout. If a marine mammal or sea turtle is sighted in the vicinity of the exercise, the tow aircraft will immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

Air-to-Surface Gunnery (Explosive and Non-Explosive Rounds)

- If surface vessels are involved, lookouts will visually survey for floating kelp, which may be inhabited by immature sea turtles, in the target area. Impact shall not occur within 200 yds (183 m) of known or observed floating weeds and kelp or algal mats.

- A 200-yd (183 m) radius buffer zone will be established around the intended target.

- If surface vessels are involved, lookout(s) will visually survey the buffer zone for marine mammals and sea turtles prior to and during the exercise.

- Aerial surveillance of the buffer zone for marine mammals and sea turtles will be conducted prior to commencement of the exercise. Aerial surveillance altitude of 500 feet to 1,500 feet (ft) (152–456 m) is optimum. Aircraft crew/pilot will maintain visual watch during exercises. Release of ordnance through cloud cover is prohibited: Aircraft must be able to actually see ordnance impact areas.

- The exercise will be conducted only if marine mammals and sea turtles are not visible within the buffer zone.

Small Arms Training—(Grenades, Explosive and Non-Explosive Rounds)

- Weapons will not be fired in the direction of known or observed floating weeds or kelp, algal mats, marine mammals, sea turtles.

Air-to-Surface At-Sea Bombing Exercises (Explosive and Non-Explosive)

- If surface vessels are involved, trained lookouts will survey for floating kelp, which may be inhabited by immature sea turtles, and marine mammals. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp, sea turtles, or marine mammals.

- A 1,000 yd (914 m) radius buffer zone will be established around the intended target.

- Aircraft will visually survey the target and buffer zone for marine mammals and sea turtles prior to and during the exercise. The survey of the impact area will be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: Aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.

- The exercise will be conducted only if marine mammals and sea turtles are not visible within the buffer zone.

Air-to-Surface Missile Exercises (Explosive and Non-Explosive)

- Ordnance shall not be targeted to impact within 1,800 yds (1,646 m) of known or observed floating kelp, which may be inhabited by immature sea turtles, or coral reefs.

- Aircraft will visually survey the target area for marine mammals and sea turtles. Visual inspection of the target area will be made by flying at 1,500 (457 m) feet or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact within 1,800 yds (1,646 m) of sighted marine mammals and sea turtles.

Demolitions, Mine Warfare, and Mine Countermeasures (up to a 20-lb Charge)

Exclusion Zones—All Mine Warfare and Mine Countermeasures Operations involving the use of explosive charges must include exclusion zones for marine mammals and sea turtles to prevent physical and/or acoustic effects to those species. These exclusion zones shall extend in a 700-yard arc (640 yd) radius around the detonation site.

Pre-Exercise Surveys—For Demolition and Ship Mine Countermeasures Operations, pre-exercise survey shall be conducted within 30 minutes prior to the commencement of the scheduled explosive event. The survey may be

conducted from the surface, by divers, and/or from the air, and personnel shall be alert to the presence of any marine mammal or sea turtle. Should such an animal be present within the survey area, the exercise shall be paused until the animal voluntarily leaves the area. The Navy will suspend detonation exercises and ensure the area is clear for a full 30 minutes prior to detonation. Personnel will record any protected species marine mammal and sea turtle observations during the exercise as well as measures taken if species are detected within the exclusion zone.

Post-Exercise Surveys—Surveys within the same radius shall also be conducted within 30 minutes after the completion of the explosive event.

Reporting—If there is evidence that a marine mammal or sea turtle may have been stranded, injured or killed by the action, Navy training activities will be immediately suspended and the situation immediately reported by the participating unit to the Officer in Charge of the Exercise (OCE), who will follow Navy procedures for reporting the incident to Commander, Pacific Fleet, Commander, Navy Region Southwest, Environmental Director, and the chain-of-command. The situation will also be reported to NMFS (see Stranding Plan for details).

Mining Operations

Mining Operations involve aerial drops of inert training shapes on target points. Aircrews are scored for their ability to accurately hit the target points. This operation does not involve live ordnance. The probability of a marine species being in the exact spot in the ocean where an inert object is dropped is remote. However, as a conservative measure, initial target points will be briefly surveyed prior to inert ordnance release from an aircraft to ensure the intended drop area is clear of marine mammals and sea turtles. To the extent feasible, the Navy shall retrieve inert mine shapes dropped during Mining Operations.

Sink Exercise

The selection of sites suitable for Sink Exercises (SINKEXs) involves a balance of operational suitability, requirements established under the Marine Protection, Research and Sanctuaries Act (MPRSA) permit granted to the Navy (40 Code of Federal Regulations § 229.2), and the identification of areas with a low likelihood of encountering Endangered Species Act (ESA) listed species. To meet operational suitability criteria, locations must be within a reasonable distance of the target vessels' originating location. The locations

should also be close to active military bases to allow participating assets access to shore facilities. For safety purposes, these locations should also be in areas that are not generally used by non-military air or watercraft. The MPRSA permit requires vessels to be sunk in waters which are at least 6,000 ft (1,829 m) deep and at least 50 nm from land. In general, most listed species prefer areas with strong bathymetric gradients and oceanographic fronts for significant biological activity such as feeding and reproduction. Typical locations include the continental shelf and shelf-edge.

The Navy has developed range clearance procedures to maximize the probability of sighting any ships or protected species in the vicinity of an exercise, which are as follows:

- All weapons firing would be conducted during the period 1 hour after official sunrise to 30 minutes before official sunset.

- A marine mammal exclusion zone with a radius of 1.0 nm will be established around the target. An additional safety zone with radius of 2.0 nm surrounding the target will be monitored. If marine mammals or sea turtles enter this 2.0 nm radius, they shall be monitored to the extent practicable and no weapons release is authorized until they are clear of the area

- A series of surveillance overflights shall be conducted prior to the event to ensure that no marine mammals or sea turtles are present in the exclusion zone. Survey protocol will be as follows:

- Overflights within the exclusion zone would be conducted in a manner that optimizes the surface area of the water observed. This may be accomplished through the use of the Navy's Search and Rescue Tactical Aid, which provides the best search altitude, ground speed, and track spacing for the discovery of small, possibly dark objects in the water based on the environmental conditions of the day. These environmental conditions include the angle of sun inclination, amount of daylight, cloud cover, visibility, and sea state.

- All visual surveillance activities would be conducted by Navy personnel trained in visual surveillance. At least one member of the mitigation team would have completed the Navy's marine mammal training program for lookouts.

- In addition to the overflights, the exclusion zone would be monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Potential assets

include sonobuoys, which can be utilized to detect any vocalizing marine mammals (particularly sperm whales) in the vicinity of the exercise. The sonobuoys would be re-seeded as necessary throughout the exercise. Additionally, passive sonar onboard submarines may be utilized to detect any vocalizing marine mammals in the area. The OCE would be informed of any aural detection of marine mammals and would include this information in the determination of when it is safe to commence the exercise.

- On each day of the exercise, aerial surveillance of the exclusion and safety zones would commence 2 hours prior to the first firing.

- The results of all visual, aerial, and acoustic searches would be reported immediately to the OCE. No weapons launches or firing would commence until the OCE declares the safety and exclusion zones free of marine mammals and threatened and endangered species.

- If a protected species observed within the exclusion zone is diving, firing would be delayed until the animal is re-sighted outside the exclusion zone, or 30 minutes have elapsed. After 30 minutes, if the animal has not been re-sighted it would be assumed to have left the exclusion zone. The OCE would determine if the listed species is in danger of being adversely affected by commencement of the exercise.

- During breaks in the exercise of 30 minutes or more, the exclusion zone would again be surveyed for any protected species. If protected species are sighted within the exclusion zone, the OCE would be notified, and the procedure described above would be followed.

- Upon sinking of the vessel, a final surveillance of the exclusion zone would be monitored for 2 hours, or until sunset, to verify that no listed species were harmed.

- Aerial surveillance would be conducted using helicopters or other aircraft based on necessity and availability. The Navy has several types of aircraft capable of performing this task; however, not all types are available for every exercise. For each exercise, the available asset best suited for identifying objects on and near the surface of the ocean would be used. These aircraft would be capable of flying at the slow safe speeds necessary to enable viewing of marine vertebrates with unobstructed, or minimally obstructed, downward and outward visibility. The exclusion and safety zone surveys may be cancelled in the event that a mechanical problem, emergency search and rescue, or other similar and

unexpected event preempts the use of one of the aircraft onsite for the exercise.

- Every attempt would be made to conduct the exercise in sea states that are ideal for marine mammal sighting, Beaufort Sea State 3 or less. In the event of a 4 or above, survey efforts would be increased within the zones. This would be accomplished through the use of an additional aircraft, if available, and conducting tight search patterns.

- The exercise would not be conducted unless the exclusion zone could be adequately monitored visually.

- In the unlikely event that any listed species are observed to be harmed in the area, a detailed description of the animal would be taken, the location noted, and if possible, photos taken. This information would be provided to NMFS via the Navy's regional environmental coordinator for purposes of identification (see the Stranding Plan for detail).

- An after action report detailing the exercise's time line, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of survey efforts for each event would be submitted to NMFS.

Explosive Source Sonobuoys Used in EER/IEER (AN/SSQ-110A)

- Crews will conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search should be conducted below 457 m (500 yd) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft operations, crews are allowed to conduct coordinated area clearances.

- Crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

- For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 914 m (1,000 yd) of observed marine mammal activity, deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 914 m (1,000 yd) of the intended post position, co-locate the explosive source sonobuoy (AN/SSQ-110A) (source) with the receiver.

- When able, crews will conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to checking off station and out of RF range of these sensors.

- Aural Detection—If the presence of marine mammals is detected aurally,

then that should cue the aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.

- Visual Detection—If marine mammals are visually detected within 914 m (1,000 yd) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 914 m (1,000 yd) safety buffer. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.

- Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 914 m (1,000 yd) safety buffer, visually clear of marine mammals, is maintained around each post as is done during active search operations.

- Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

- Ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that cannot be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

- Mammal monitoring shall continue until out of own-aircraft sensor range.

Additional Mitigation Measure Developed by NMFS and the Navy

As mentioned above, NMFS worked with the Navy to identify additional practicable and effective mitigation measures to address the potential relationship between the operation of MFAS/HFAS and marine mammal strandings. Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

(a) Avoidance or minimization of injury or death of marine mammals wherever possible (goals b, c, and d may contribute to this goal).

(b) A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(c) A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing harassment takes only).

(d) A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of MFAS/HFAS, underwater detonations, or other activities expected to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

(e) A reduction in adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

(f) For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation (shut-down zone, etc.).

NMFS and the Navy had extensive discussions regarding mitigation and potential strandings. Ultimately, NMFS and the Navy developed the proposed draft SOCAL Stranding Plan (summarized below), which we believe supports (or contributes) to the goals mentioned in (a)–(e) above.

Stranding Response Plan for Major Navy Training Exercises in the SOCAL Range Complex

NMFS and the Navy have developed a draft Stranding Response Plan for Major Exercises in the SOCAL Range Complex (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>). Pursuant to 50 CFR Section 216.105, the plan will be included as part of (attached to) the Navy's MMPA Letter of Authorization (LOA), which contains the conditions under which the Navy is authorized to take marine mammals pursuant to

training activities involving MFAS/HFAS or explosives in the SOCAL Range Complex. The Stranding Response plan is specifically intended to outline the applicable requirements the authorization is conditioned upon in the event that a marine mammal stranding is reported in the SOCAL Range Complex during a major training exercise (MTE) (see glossary below). As mentioned above, NMFS considers all plausible causes within the course of a stranding investigation and this plan in no way presumes that any strandings that could occur in the SOCAL Range Complex are related to, or caused by, Navy training activities, absent a determination made in a Phase 2 Investigation as outlined in the plan, indicating that MFAS or explosive detonation in the SOCAL Range Complex were a cause of the stranding. This plan is designed to address the following three issues:

- **Mitigation**—When marine mammals are in a situation that can be defined as a stranding (see glossary of plan), they are experiencing physiological stress. When animals are stranded, and alive, NMFS believes that exposing these compromised animals to additional known stressors would likely exacerbate the animal's distress and could potentially cause its death. Regardless of the factor(s) that may have initially contributed to the stranding, it is NMFS' goal to avoid exposing these animals to further stressors. Therefore, when live stranded cetaceans are in the water and engaged in what is classified as an Uncommon Stranding Event (USE) (see glossary of plan), the shutdown component of this plan is intended to minimize the exposure of those animals to MFAS and explosive detonations, regardless of whether or not these activities may have initially played a role in the event.

- **Monitoring**—This plan will enhance the understanding of how MFAS/HFAS or underwater detonations (as well as other environmental conditions) may, or may not, be associated with marine mammal injury or strandings. Additionally, information gained from the investigations associated with this plan may be used in the adaptive management of mitigation or monitoring measures in subsequent LOAs, if appropriate.

- **Compliance**—The information gathered pursuant to this protocol will inform NMFS' decisions regarding compliance with Sections 101(a)(5)(B and C) of the MMPA.

The Stranding Response Plan has several components:

Shutdown Procedures—When an uncommon stranding event (USE—

defined in the plan) occurs during a major exercise in the SOCAL Range Complex, and a live cetacean(s) is in the water exhibiting indicators of distress (defined in the plan), NMFS will advise the Navy that they should cease MFAS/HFAS operation and explosive detonations within 14 nm (26 km) of the live animal involved in the USE (NMFS and Navy will maintain a dialogue, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures). This distance is the approximate distance at which sound from the active sonar sources is anticipated to attenuate to 145 dB (SPL). The risk function predicts that less than 1 percent of the animals exposed to active sonar at this level (mysticete or odontocete) would respond in a manner that NMFS considers Level B Harassment.

Memorandum of Agreement (MOA)—The Navy and NMFS will develop a MOA, or other mechanism consistent with federal fiscal law requirements (and all other applicable laws), that allows the Navy to assist NMFS with the Phase 1 and 2 Investigations of USEs through the provision of in-kind services, such as (but not limited to) the use of plane/boat/truck for transport of stranding responders or animals, use of Navy property for necropsies or burial, or assistance with aerial surveys to discern the extent of a USE. The Navy may assist NMFS with the Investigations by providing one or more of the in-kind services outlined in the MOA, when available and logistically feasible and when the provision does not negatively affect Fleet operational commitments.

Communication Protocol—Effective communication is critical to the successful implementation of this Stranding Response Plan. Very specific protocols for communication, including identification of the Navy personnel authorized to implement a shutdown and the NMFS personnel authorized to advise the Navy of the need to implement shutdown procedures (NMFS Protected Resources HQ—senior administrators) and the associated phone trees, etc. are currently in development and will be refined and finalized for the Stranding Response Plan prior to the issuance of a final rule (and updated yearly).

Stranding Investigation—The Stranding Response Plan also outlines the way that NMFS plans to investigate any strandings (providing staff and resources are available) that occur during major training exercises in the SOCAL Range Complex.

Mitigation Conclusions

NMFS believes that the range clearance procedures and shutdown/safety zone/exclusion zone measures the Navy has proposed will enable the Navy to avoid injuring any marine mammals and will enable them to minimize the numbers of marine mammals exposed to levels associated with TTS for the following reasons:

MFAS/HFAS

The Navy's standard protective measures indicate that they will ensure powerdown of MFAS/HFAS by 6 dB when a marine mammal is detected within 1,000 yd (914 m), powerdown of 4 more dB (or 10 dB total) when a marine mammal is detected within 500 yd (457 m), and will cease MFAS/HFAS transmissions when a marine mammal is detected within 200 yd (183 m).

PTS/Injury—NMFS believes that the proposed mitigation measures will allow the Navy to avoid exposing marine mammals to received levels of MFAS/HFAS sound that would result in injury for the following reasons:

- The estimated distance from the most powerful source at which cetaceans and all pinnipeds except harbor seals would receive a level of 215 dB SEL (threshold for PTS/injury/Level A Harassment) is approximately 10 m (10.9 yd). The PTS threshold for harbor seals is 203 dB SEL, which has an associated distance of approximately 50 m.

- NMFS believes that the probability that a marine mammal would approach within the above distances of the sonar dome (to the sides or below) without being seen by the watchstanders (who would then activate a shutdown if the animal was within 200 yd (183 m)) is very low, especially considering that animals would likely avoid approaching a source transmitting at that level at that distance.

- The model predicted that some animals would be exposed to levels associated with injury, however, the model does not consider the mitigation or likely avoidance behaviors and NMFS believes that injury is unlikely when those factors are considered.

TTS—NMFS believes that the proposed mitigation measures will allow the Navy to minimize exposure of marine mammals to received levels of MFAS/HFAS sound associated with TTS for the following reasons:

- The estimated range of maximum distances from the most powerful source at which an animal would receive 195 dB SEL (the TTS threshold) is from approximately 140 m from the source in most operating environments (except for

harbor seals for which the distance is approximately 1,700 m).

- Based on the size of the animals, average group size, behavior, and average dive time, NMFS believes that the probability that Navy watchstanders will visually detect mysticetes or sperm whales, dolphins, social pelagic species (pilot whales, melon-headed whales, etc.), and sea lions at some point within the 1,000 yd (914 m) safety zone before they are exposed to the TTS threshold levels is high, which means that the Navy would be able to shutdown or powerdown to avoid exposing these species to sound levels associated with TTS.

- However, seals and more cryptic (animals that are difficult to detect and observe), deep-diving cetaceans (beaked whales and *Kogia* spp.) are less likely to be visually detected and could potentially be exposed to levels of MFAS/HFAS expected to cause TTS. Animals at depth in one location would not be expected to be continuously exposed to repeated sonar signals, though, given the typical 5–10+ knot speed of Navy surface ships during ASW event. During a typical one-hour subsurface dive by a beaked whale, the ship will have moved over 5 to 10 nm from the original location.

- Additionally, the Navy's bow-riding mitigation exception for dolphins may sometimes allow dolphins to be exposed to levels of MFAS/HFAS likely to result in TTS. However, there are combinations of factors that reduce the acoustic energy received by dolphins approaching ships to ride in bow waves. Dolphins riding ship's bow wave are outside of the main beam of the MFAS vertical beam pattern. Source levels drop quickly outside of the main beam. Sidelobes of the radiate beam pattern that point to the surface are significantly lower in power. Together with spherical spreading losses, received levels in the ship's bow wave can be more than 42 dB less than typical source level (i.e., 235 dB – 42 dB = 193 dB). Finally, bow wave riding dolphins are frequently in and out of a bubble layer generated by the breaking bow waves. This bubble layer is an excellent scatterer of acoustic energy and can further reduce received energy.

Underwater Explosives

The Navy utilizes exclusion zones (wherein explosive detonation will not begin/continue if animals are within the zone) for explosive exercises. Table 3 indicates the various explosives, the estimated distance at which animals will receive levels associated with take (see Acoustic Take Criteria Section), and

the exclusion zone associated with the explosive types.

Mortality and Injury—NMFS believes that the mitigation measures will allow the Navy to avoid exposing marine mammals to underwater detonations that would result in injury or mortality for the following reasons:

- Surveillance for large charges (which includes aerial and passive acoustic detection methods, when available, to ensure clearance) begins two hours before the exercise and extends to 2 nm (3,704 m) from the source. Surveillance for all charges extends out 2–12 times the farthest distance from the source at which injury would be anticipated to occur (see Table 3).

- Animals would need to be within less than 193–723 m (211–790 yd) (large explosives) or 24–158 m (26–173 yd) (smaller charges) from the source to be injured.

- Unlike for active sonar, an animal would need to be present at the exact moment of the explosion(s) (except for the short series of gunfire example in GUNEX) to be taken.

- The model predicted only 34 and 7 animals would be exposed to levels associated with injury and death, respectively (though for the reasons above, NMFS does not believe they will be exposed to those levels).

- When the implementation of the exclusion zones (i.e., not starting or continuing to detonate explosives if an animal is detected within the exclusion zone) is combined with the above bullets, NMFS believes that the Navy's mitigation will be effective for avoiding injury and mortality to marine mammals from explosives.

TTS—NMFS believes that the proposed mitigation measures will allow the Navy to minimize the exposure of marine mammals to underwater detonations that would result in TTS for the following reasons:

- A number of animals were predicted to be exposed to explosive levels that would result in TTS—and for the reasons above, NMFS believes that most modeled TTS takes can be avoided, especially dolphins, mysticetes and sperm whales, and social pelagic species.

- However, pinnipeds and more cryptic, deep-diving species (beaked whales and *Kogia* spp.) are less likely to be visually detected and could potentially be exposed to explosive levels expected to cause TTS.

- Additionally, for two of the exercise types (SINKEX and BOMBEX), the distance at which an animal would be expected to receive sound or pressure levels associated with TTS (182 dB SEL

or 23 psi) is sometimes larger than the exclusion zone, which means that for those two exercise types, some individuals will likely be exposed to levels associated with TTS outside of the exclusion zone.

The Stranding Response Plan, another important component of the mitigation measures for SOCAL, will minimize the probability of distressed live-stranded animals responding to the proximity of active sonar in a manner that further stresses them or increases the potential likelihood of mortality.

NMFS has preliminarily determined that the Navy's proposed mitigation measures (from the LOA application), along with the Stranding Response Plan (and when the Adaptive Management (see Adaptive Management below) component is taken into consideration) are adequate means of effecting the least practicable adverse impacts on marine mammals species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

These mitigation measures may be refined, modified, removed, or added to prior to the issuance of the final rule based on the comments and information received during the public comment period.

Research

The Navy provides a significant amount of funding and support to marine research. In the past five years the agency funded over \$100 million (\$26 million in FY08 alone) to universities, research institutions, federal laboratories, private companies, and independent researchers around the world to study marine mammals. The U.S. Navy sponsors seventy percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted worldwide. Major topics of Navy-supported research include the following:

- Better understanding of marine species distribution and important habitat areas,
- Developing methods to detect and monitor marine species before and during training,
- Understanding the effects of sound on marine mammals, sea turtles, fish, and birds, and
- Developing tools to model and estimate potential effects of sound.

This research is directly applicable to Fleet training activities, particularly with respect to the investigations of the

potential effects of underwater noise sources on marine mammals and other protected species. Proposed training activities employ active sonar and underwater explosives, which introduce sound into the marine environment.

The Marine Life Sciences Division of the Office of Naval Research currently coordinates six programs that examine the marine environment and are devoted solely to studying the effects of noise and/or the implementation of technology tools that will assist the Navy in studying and tracking marine mammals. The six programs are as follows:

- Environmental Consequences of Underwater Sound,
- Non-Auditory Biological Effects of Sound on Marine Mammals,
- Effects of Sound on the Marine Environment,
- Sensors and Models for Marine Environmental Monitoring,
- Effects of Sound on Hearing of Marine Animals, and
- Passive Acoustic Detection, Classification, and Tracking of Marine Mammals.

The Navy has also developed the technical reports referenced within this document, which include the Marine Resource Assessments and the Navy OPAREA Density Estimates (NODE) reports. Furthermore, research cruises by the National Marine Fisheries Service (NMFS) and by academic institutions have received funding from the U.S. Navy.

The Navy has sponsored several workshops to evaluate the current state of knowledge and potential for future acoustic monitoring of marine mammals. The workshops brought together acoustic experts and marine biologists from the Navy and other research organizations to present data and information on current acoustic monitoring research efforts and to evaluate the potential for incorporating similar technology and methods on instrumented ranges. However, acoustic detection, identification, localization, and tracking of individual animals still requires a significant amount of research effort to be considered a reliable method for marine mammal monitoring. The Navy supports research efforts on acoustic monitoring and will continue to investigate the feasibility of passive acoustics as a potential mitigation and monitoring tool.

Overall, the Navy will continue to fund ongoing marine mammal research, and is planning to coordinate long term monitoring/studies of marine mammals on various established ranges and operating areas. The Navy will continue to research and contribute to university/

external research to improve the state of the science regarding marine species biology and acoustic effects. These efforts include mitigation and monitoring programs; data sharing with NMFS and via the literature for research and development efforts; and future research as described previously.

Long-Term Prospective Study

Apart from this proposed rule, NMFS, with input and assistance from the Navy and several other agencies and entities, will perform a longitudinal observational study of marine mammal strandings to systematically observe for and record the types of pathologies and diseases and investigate the relationship with potential causal factors (e.g., active sonar, seismic, weather). The study will not be a true "cohort" study, because we will be unable to quantify or estimate specific active sonar or other sound exposures for individual animals that strand. However, a cross-sectional or correlational analysis, a method of descriptive rather than analytical epidemiology, can be conducted to compare population characteristics, e.g., frequency of strandings and types of specific pathologies between general periods of various anthropogenic activities and non-activities within a prescribed geographic space. In the long-term study, we will more fully and consistently collect and analyze data on the demographics of strandings in specific locations and consider anthropogenic activities and physical, chemical, and biological environmental parameters. This approach in conjunction with true cohort studies (tagging animals, measuring received sounds, and evaluating behavior or injuries) in the presence of activities and non-activities will provide critical information needed to further define the impacts of MTEs and other anthropogenic and non-anthropogenic stressors. In coordination with the Navy and other Federal and non-federal partners, the comparative study will be designed and conducted for specific sites during intervals of the presence of anthropogenic activities such as active sonar transmission or other sound exposures and absence to evaluate demographics of morbidity and mortality, lesions found, and cause of death or stranding. Additional data that will be collected and analyzed in an effort to control potential confounding factors include variables such as average sea temperature (or just season), meteorological or other environmental variables (e.g., seismic activity), fishing activities, etc. All efforts will be made to include appropriate controls (i.e., no active sonar or no seismic);

environmental variables may complicate the interpretation of “control” measurements. The Navy and NMFS along with other partners are evaluating mechanisms for funding this study.

Monitoring

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth “requirements pertaining to the monitoring and reporting of such taking”. The MMPA implementing regulations at 50 Section 216.104 (a)(13) indicate that requests for LOAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

(a) An increase in the probability of detecting marine mammals, both within the safety zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below.

(b) An increase in our understanding of how many marine mammals are likely to be exposed to levels of MFAS/HFAS (or explosives or other stimuli) that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

(c) An increase in our understanding of how marine mammals respond to MFAS/HFAS (at specific received levels), explosives, or other stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:

- Behavioral observations in the presence of MFAS/HFAS compared to observations in the absence of active

sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information).

- Physiological measurements in the presence of MFAS/HFAS compared to observations in the absence of active sonar (need to be able to accurately predict received level and report bathymetric conditions, distance from source, and other pertinent information).

- Pre-planned (i.e., well designed protocols in place) and thorough investigation of stranding events that occur coincident to naval activities.

- Distribution and/or abundance comparisons in times or areas with concentrated MFAS/HFAS versus times or areas without MFAS/HFAS.

(d) An increased knowledge of the affected species.

(e) An increase in our understanding of the effectiveness of certain mitigation and monitoring measures

Proposed Monitoring Plan for the SOCAL Range Complex

The Navy has submitted a draft Monitoring Plan for the SOCAL Range Complex, which may be viewed at NMFS’ Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS and the Navy have worked together on the development of this plan in the months preceding the publication of this proposed rule; however, we are still refining the plan and anticipate that it will contain more details by the time it is finalized in advance of the issuance of the final rule. Additionally, the plan may be modified or supplemented based on comments or new information received from the public during the public comment period. A summary of the primary components of the plan follows.

The draft Monitoring Plan for SOCAL has been designed as a collection of focused “studies” (described fully in the SOCAL draft Monitoring Plan) to gather data that will allow the Navy to address the following questions:

(a) Are marine mammals exposed to MFAS, especially at levels associated with adverse effects (i.e., based on NMFS’ criteria for behavioral harassment, TTS, or PTS)? If so, at what levels are they exposed?

(b) If marine mammals are exposed to MFAS in the SOCAL Range Complex, do they redistribute geographically as a result of continued exposure? If so, how long does the redistribution last?

(c) If marine mammals are exposed to MFAS, what are their behavioral responses to various levels?

(d) Is the Navy’s suite of mitigation measures for MFAS (e.g., measures agreed to by the Navy through permitting) effective at avoiding TTS, injury, and mortality of marine mammals?

Data gathered in these studies will be collected by qualified, professional marine mammal biologists that are experts in their field. They will use a combination of the following methods to collect data:

- Contracted vessel and aerial surveys.
- Passive acoustics.
- Marine mammal observers on Navy ships.

In the five proposed study designs (all of which cover multiple years), the above methods will be used separately or in combination to monitor marine mammals in different combinations before, during, and after training activities utilizing MFAS/HFAS. Table 6 contains a summary of the Monitoring effort that is planned for each study in each year.

This monitoring plan has been designed to gather data on all species of marine mammals that are observed in the SOCAL. The Plan recognizes that deep-diving and cryptic species of marine mammals such as beaked whales have a low probability of detection (Barlow and Gisiner, 2006). Therefore, methods will be utilized to attempt to address this issue (e.g., passive acoustic monitoring).

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STUDY 1,3, 4 (exposures and behavioral responses)						
	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys	Award monitoring contract, develop SOP, obtain permits	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events
Marine Mammal Observers	Opportunistic as staff and SOP developed	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours
Vessel surveys (study 3 and 4 only)	Award monitoring contract, develop SOP	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events
Shore based surveys (study 4 only)		Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography
STUDY 2 (geographic redistribution)						
	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys before and after training events	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours
Passive Acoustics	Award monitoring contract	Order devices and determine best location, integrate SOAR M3R classification data (beaked whales)	Installation of up to 5 autonomous devices in the SOCAL study area and begin recording, integrate SOAR M3R classification data (beaked whales)	Continue recording from devices Begin data analysis, integrate SOAR M3R classification data (beaked whales)	Continue recording from devices and data analysis, integrate SOAR M3R classification data (beaked whales)	Data Analysis and continue recording from devices and data analysis, integrate SOAR M3R classification data (beaked whales)
STUDY 5 (mitigation effectiveness)						
	FY08	FY09	FY10	FY11	FY12	FY13
Marine mammal observers/lookout comparison	Opportunistic as staff and SOP developed	IAC or ULT- 40 hours	IAC or ULT- 40 hours	IAC or ULT- 40 hours	IAC or ULT- 40 hours	SEASWIT1 or ULT- 40 hours
Aerial surveys before and after training events	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours

Table 6. Summary of monitoring effort proposed in draft Monitoring Plan for SOCAL

In addition to the Monitoring Plan for SOCAL, by the end of 2009, the Navy will have completed an Integrated Comprehensive Monitoring Program (ICMP). The ICMP will provide the overarching structure and coordination that will, over time, compile data from both range specific monitoring plans (such as AFAST, the Hawaii Range complex, and the Southern California Range Complex) as well as Navy funded research and development (R&D) studies. The primary objectives of the ICMP are to:

- Monitor Navy training events, particularly those involving MFAS and underwater detonations, for compliance with the terms and conditions of ESA Section 7 consultations or MMPA authorizations;

- Collect data to support estimating the number of individuals exposed to sound levels above current regulatory thresholds;

- Assess the efficacy of the Navy's current marine species mitigation;
- Add to the knowledge base on potential behavioral and physiological effects to marine species from mid-frequency active sonar and underwater detonations; and,
- Assess the practicality and effectiveness of a number of mitigation tools and techniques (some not yet in use).

More information about the ICMP may be found in the draft Monitoring Plan for SOCAL.

Past Monitoring in the SOCAL Range Complex

NMFS has received ten total after action reports (AARs) addressing 12 MFAS exercises in the SOCAL Range Complex since 2006 (the Navy has only been required to submit reports to NMFS since 2006 pursuant to the terms and conditions of the associated biological opinions). NMFS has reviewed these reports and has summarized the results, as related to marine mammal observations, in Table 7. The data contained in the After Action Reports (AAR) have been considered in developing mitigation and monitoring measures for the proposed activities contained in this rule. The Navy's AARs may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>.

Exercise	Dates	Year	No. of surface vessels equipped with SSC or SSC Sonar in exercises	Sonar Sources used in this exercise	Known hours of observation by Individuals (hours)	Hours of total NFAS use (not continuous)	No. of separate marine mammal sightings	No. of total marine mammals sighted	No. of Dolphins of total animals	Minimum No. of Large whales	No. of Times Sonar was shut or Powered Down					Reports of Unusual behavior				
											NDE Measures				Court-Imposed (2008)		TOTAL (including outside of safety zones or unknown range)			
											Within 200 m	200 -500 m	500 - 1000 m	1000 - 2000 m						
COMPTUEX 08 3 USS Ronald Reagan CSG	March 17 - April 7	2008	5	Hull-mounted, Helicopter Dipping Sonar, sonobuoys	> 2640	480	133	623	428	62	7	11	6	18	42	No				
COMPTUEX 08 3 USS Pelieu ESO	March 20 - 27	2008	3	Hull-mounted, Helicopter Dipping Sonar, sonobuoys	> 504	65	71	182	80	1	1	2	3	0	8	No				
JTFEX 08-04	August 10 - 17	2008	4	Hull-mounted, Helicopter Dipping Sonar, Sonobuoys, Submarine			11	230	221	8	0	0	0	0	0	No				
COMPTUEX 07 01 USS Nimitz CSG	November 18 - December 19	2008		Hull-mounted, Submarine			46	378	305	1	1	1	0	1	10	No				
JTFEX 08-05 USS Ronald Reagan CSG	April 11 - 17	2008	9	Hull-mounted, Helicopter Dipping, sonobuoys	> 1512	219	59	836	879	21	1	2	4	3	10	No				
COMPTUEX 07 07 USS Tarawa ESO	September 7 - September 21	2007	3	Hull-mounted, Helicopter Dipping, sonobuoys		134	57	289	223	18	2	0	0	0	4	No				
COMPTUEX 08 04 USS Stennis CSG	September 20 - October 12	2008	10	Hull-mounted, Helicopter Dipping Sonar, Submarine		310	73	1225	1081	43	2	1	1	0	5	No				
JTFEX 07-01 USS Stennis CSG	November 7 - November 18	2007	8	Hull-mounted and Submarine			19	140	85	1	1	1	0	0	3	No				
COMPTUEX 08 01 USS Lincoln CSG	October 25 - November 14	2007	8	Hull-mounted, Helicopter Dipping Sonar	4032	345	105	1410	1255	70	3	1	2	0	6	No				
COMPTUEX 07 02 ESG	February 14 - March 2	2007	3	Hull-mounted and helicopter dipping		170	25	404	355	0	1	1	1	0	5	No				
JTFEX 07-03 CSG	February 23 - March 3	2007	5	Hull-mounted and helicopter dipping		100	42	881	858	1	0	0	0	0	0	No				
JTFEX 07 -05 ESO	March 14 - 24	2007	3	Hull-mounted and helicopter dipping		48	61	728	807	28	1	3	1	3	11	No				
Totals											1880	704	7435	8405	278	18	23	16	25	105

Table 7. Summary of SOCAL After Action Reports

Table 7. Summary of SOCAL After Action Reports

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General Conclusions Drawn From Review of Monitoring Reports

The data included in the after action reports provided by the Navy thus far comes from Navy watchstander

observations, not independent aerial or vessel-based observers (though they would be required by these regulations and any accompanying LOA (see Monitoring)), and therefore it is difficult to draw biological conclusions. However, NMFS can draw some general

conclusions from the content of the monitoring reports:

(a) Data from watchstanders is generally useful to indicate the presence or absence of marine mammals within the safety zones (and sometimes without) and to document the

implementation of mitigation measures, but does not provide useful species' specific information or behavioral data. Though a few observations identified pilot or gray whales specifically, the vast majority of the observations identified marine mammals as dolphins, whales, large whales, small whales, sea lions, pinnipeds, or unknown. Data gathered by independent observers can provide very valuable information at a level of detail not possible with watchstanders (such as data gathered by independent, biologist monitors in Hawaii and submitted to NMFS in a monitoring report, which indicated the presence of sub-adult sei whales in the Hawaiian Islands in fall, potentially indicating the use of the area for breeding).

(b) Though it is by no means conclusory, it is worth noting that no instances of obvious behavioral disturbance were reported by the Navy watchstanders in their 704 marine mammal sightings totaling 7435 animals. Though of course, these observations only cover the animals that were at the surface (or slightly below in the case of aerial surveys) and within the distance that the observers can see with the big-eye binoculars or from the aircraft.

(c) NMFS and the Navy need to more carefully designate what information should be gathered during monitoring, as some reports contain different information, making cross-report comparisons difficult. NMFS and Navy will work on this issue prior to the issuance of the final rule for the SOCAL activities.

Adaptive Management

Adaptive Management was addressed above in the context of the Stranding Response Plan because that Section will be a stand-alone document. More specifically, the final regulations governing the take of marine mammals incidental to Navy training exercises in the SOCAL Range Complex will contain an adaptive management component. Our understanding of the effects of MFAS/HFAS and explosives on marine mammals is still in its relative infancy, and yet the science in this field is evolving fairly quickly. These circumstances make the inclusion of an adaptive management component both valuable and necessary within the context of 5-year regulations for activities that have been associated with marine mammal mortality in certain circumstances and locations (though not the SOCAL Range Complex in the Navy's over 70 years of use of the area for testing and training). The use of adaptive management will give NMFS

the ability to consider new data from different sources to determine (in coordination with the Navy), on an annual basis if new or modified mitigation or monitoring measures are appropriate for subsequent annual LOAs. Following are some of the possible sources of applicable data:

- Results from the Navy's monitoring from the previous year (either from the SOCAL Range Complex or other locations).
- Results from specific stranding investigations (either from the SOCAL Range Complex or other locations, and involving coincident MFAS/HFAS or explosives training or not involving coincident use).
- Results from the Long Term Prospective Study described below.
- Results from general marine mammal and sound research (funded by the Navy (described below) or otherwise).

Mitigation measures could be modified or added if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable. NMFS could also coordinate with the Navy to modify or add to the existing monitoring requirements if the new data suggest that the addition of a particular measure would likely fill in a specifically important data gap.

Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(A) of the MMPA states that NMFS must set forth "requirements pertaining to the monitoring and reporting of such taking". Effective reporting is critical both to compliance as well as ensuring that the most value is obtained from the required monitoring. Some of the reporting requirements are still in development and the final rule may contain additional details not contained in the proposed rule. Additionally, proposed reporting requirements may be modified, removed, or added based on information or comments received during the public comment period. Currently, there are several different reporting requirements pursuant to these proposed regulations:

General Notification of Injured or Dead Marine Mammals

Navy personnel will ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as clearance procedures allow) if an injured or dead marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater

explosive detonations. The Navy will provide NMFS with species or description of the animal(s), the condition of the animal(s) (including carcass condition if the animal is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). The SOCAL Stranding Response Plan contains more specific reporting requirements for specific circumstances.

SINKEX, GUNEX, MISSILEX, BOMBEX, Mine Warfare/Countermeasures, and NSFS

A yearly report detailing the exercise's timeline, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of marine mammal survey efforts for each event will be submitted to NMFS.

IEER

A yearly report detailing the number of exercises along with the hours of associated marine mammal survey and associated marine mammal sightings, number of times employment was delayed by marine mammal sightings, and the number of total detonated charges and self-scuttled charges will be submitted to NMFS.

MFAS/HFAS Mitigation/Navy Watchstanders

The Navy will submit an After Action Report to the Office of Protected Resources, NMFS, within 120 days of the completion of a Major or Coordinated Training Exercise (Sustainment, IAC2, SHAREM, COMPTUEX, or JTFEX). For other ASW exercises the Navy will submit a yearly summary report. These reports will, at a minimum, include the following information:

- The estimated total number of hours of active sonar operation and the types of sonar used in the exercise.
- If possible, the total number of hours of observation effort (including observation time when active sonar was not operating).
- A report of all marine mammal sightings (at any distance—not just within a particular distance) to include, when possible and to the best of their ability, and if not classified:
 - Species or animal type.
 - Number of animals sighted.
 - Location of marine mammal sighting (where not classified).
 - Distance of animal from any operating active sonar sources.
 - Whether animal is fore, aft, port, starboard.
 - Direction animal is moving in relation to source (away, towards, parallel).

■ Any observed behaviors of marine mammals.

- The status of any active sonar sources (what sources were in use) and whether or not they were powered down or shut down as a result of the marine mammal observation.
- The platform type that the marine mammals were sighted from.

Monitoring Report From Monitoring Plan

Although the draft Monitoring Plan for SOCAL contains a general description of the monitoring that the Navy plans to conduct (and that NMFS has analyzed) in the SOCAL Range Complex, the detailed analysis and reporting protocols that will be used for the SOCAL monitoring plan are still being refined at this time. The draft SOCAL Monitoring plan may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Navy will standardize data collection methods across ranges to allow for comparison in different geographic locations. Reports of the required monitoring will be submitted to NMFS on an annual basis as well as in the form of a multi-year report that compiles all five years worth of monitoring data (reported at end of fourth year of rule—in future rules will include the last year of the prior rule).

SOCAL Comprehensive Report

The Navy will submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during ASW and explosive exercises for which individual reports are required. This report will be submitted at the end of the fourth year of the rule (December 2012), covering activities that have occurred through June 1, 2012. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then. The activities authorized by this LOA that are not covered in this report (i.e., those that occur between June 2012 and January 2014) will be covered in the comprehensive report of the next 5-yr regulations for SOCAL, if issued.

Comprehensive National ASW Report

The Navy will submit a draft Comprehensive National ASW Report that analyzes, compares, and summarizes the data gathered from the watchstanders and pursuant to the implementation of the Monitoring Plans for AFAST, the Hawaii Range Complex, the Southern California (SOCAL) Range

Complex, the Northwest Training Range Complex (NWTRC) and the Marianas range Complex. This report will be submitted by June 2014, covering activities that have occurred in these four ranges through June 1, 2013. The Navy will respond to NMFS comments on the draft comprehensive report if submitted within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or three months after the submittal of the draft if NMFS does not comment by then.

Estimated Take of Marine Mammals

As mentioned previously, for the purposes of MMPA authorizations, NMFS' effects assessments have two primary purposes (in the context of the SOCAL rulemaking and LOA process, where subsistence communities are not present): (1) To set forth the permissible methods of taking within the context of MMPA Level B Harassment (behavioral harassment), Level A Harassment (injury), and mortality (i.e., identify the number and types of take that will occur); and (2) to determine whether the specified activity will have a negligible impact on the affected species or stocks of marine mammals (based on the likelihood that the activity will adversely affect the species or stock through effects on annual rates of recruitment or survival).

In the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations section, NMFS' analysis identified the lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (particular stress responses), and behavioral responses that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations. In this section, we will relate the potential effects to marine mammals from MFAS/HFAS and underwater detonation of explosives to the MMPA statutory definitions of Level A and Level B Harassment and attempt to quantify the effects that might occur from the specific training activities that the Navy is proposing in the SOCAL Range Complex.

Definition of Harassment

As mentioned previously, with respect to military readiness activities, Section 3(18)(B) of the MMPA defines "harassment" as: (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) any act that disturbs or is likely to disturb a marine mammal or marine

mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Level B Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section, the following are the types of effects that fall into the Level B Harassment category:

Behavioral Harassment—Behavioral disturbance that rises to the level described in the definition above, when resulting from exposures to MFAS/HFAS or underwater detonations, is considered Level B Harassment. Some of the lower level physiological stress responses discussed in the Potential Effects of Exposure of Marine Mammal to MFAS/HFAS and Underwater Detonations Section: Stress Section will also likely co-occur with the predicted harassments, although these responses are more difficult to detect and fewer data exist relating these responses to specific received levels of sound. When Level B Harassment is predicted based on estimated behavioral responses, those takes may have a stress-related physiological component as well.

In the effects section above, we described the Southall *et al.* (2007) severity scaling system and listed some examples of the three broad categories of behaviors: (0–3: Minor and/or brief behaviors); 4–6 (Behaviors with higher potential to affect foraging, reproduction, or survival); 7–9 (Behaviors considered likely to affect the aforementioned vital rates). Generally speaking, MMPA Level B Harassment, as defined in this document, would include the behaviors described in the 7–9 category, and a subset, dependent on context and other considerations, of the behaviors described in the 4–6 categories. Behavioral harassment does not generally include behaviors ranked 0–3 in Southall *et al.* (2007).

Acoustic Masking and Communication Impairment—Acoustic masking is considered Level B Harassment as it can disrupt natural behavioral patterns by interrupting or limiting the marine mammal's receipt or transmittal of important information or environmental cues.

TTS—As discussed previously, TTS can affect how an animal behaves in response to the environment, including conspecifics, predators, and prey. The

following physiological mechanisms are thought to play a role in inducing auditory fatigue: Effects to sensory hair cells in the inner ear that reduce their sensitivity, modification of the chemical environment within the sensory cells, residual muscular activity in the middle ear, displacement of certain inner ear membranes, increased blood flow, and post-stimulatory reduction in both efferent and sensory neural output. Ward (1997) suggested that when these effects result in TTS rather than PTS, they are within the normal bounds of physiological variability and tolerance and do not represent a physical injury. Additionally, Southall *et al.* (2007) indicate that although PTS is a tissue injury, TTS is not, because the reduced hearing sensitivity following exposure to intense sound results primarily from fatigue, not loss, of cochlear hair cells and supporting structures and is reversible. Accordingly, NMFS classifies TTS (when resulting from exposure to either MFAS/HFAS or underwater detonations) as Level B Harassment, not Level A Harassment (injury).

Level A Harassment

Of the potential effects that were described in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and Underwater Detonations Section, following are the types of effects that fall into the Level A Harassment category:

PTS—PTS (resulting either from exposure to MFAS/HFAS or explosive detonations) is irreversible and considered an injury. PTS results from exposure to intense sounds that cause a permanent loss of inner or outer cochlear hair cells or exceed the elastic limits of certain tissues and membranes in the middle and inner ears and result in changes in the chemical composition of the inner ear fluids.

Tissue Damage due to Acoustically Mediated Bubble Growth—A few theories suggest ways in which gas bubbles become enlarged through exposure to intense sounds (MFAS/HFAS) to the point where tissue damage results. In rectified diffusion, exposure to a sound field would cause bubbles to increase in size. A short duration of active sonar pings (such as that which an animal exposed to MFAS would be most likely to encounter) would not likely be long enough to drive bubble growth to any substantial size. Alternately, bubbles could be destabilized by high-level sound exposures such that bubble growth then occurs through static diffusion of gas out of the tissues. The degree of supersaturation and exposure levels observed to cause microbubble

destabilization are unlikely to occur, either alone or in concert because of how close an animal would need to be to the sound source to be exposed to high enough levels, especially considering the likely avoidance of the sound source and the required mitigation. Still, possible tissue damage from either of these processes would be considered an injury.

Tissue Damage due to Behaviorally Mediated Bubble Growth—Several authors suggest mechanisms in which marine mammals could behaviorally respond to exposure to MFAS/HFAS by altering their dive patterns in a manner (unusually rapid ascent, unusually long series of surface dives, etc.) that might result in unusual bubble formation or growth ultimately resulting in tissue damage (emboli, etc.) In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. There is considerable disagreement among scientists as to the likelihood of this phenomenon (Piantadosi and Thalmann, 2004; Evans and Miller, 2003). Although it has been argued that traumas from recent beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.*, 2003; Fernandez *et al.*, 2005), nitrogen bubble formation as the cause of the traumas has not been verified. If tissue damage does occur by this phenomenon, it would be considered an injury.

Physical Disruption of Tissues Resulting from Explosive Shock Wave—Physical damage of tissues resulting from a shock wave (from an explosive detonation) is classified as an injury. Blast effects are greatest at the gas-liquid interface (Landsberg, 2000) and gas-containing organs, particularly the lungs and gastrointestinal tract, are especially susceptible (Goertner, 1982; Hill 1978; Yelverton *et al.*, 1973). Nasal sacs, larynx, pharynx, trachea, and lungs may be damaged by compression/expansion caused by the oscillations of the blast gas bubble (Reidenberg and Laitman, 2003). Severe damage (from the shock wave) to the ears can include tympanic membrane rupture, fracture of the ossicles, damage to the cochlea, hemorrhage, and cerebrospinal fluid leakage into the middle ear.

Acoustic Take Criteria

For the purposes of an MMPA incidental take authorization, three types of take are identified: Level B Harassment; Level A Harassment; and mortality (or serious injury leading to mortality). The categories of marine mammal responses (physiological and

behavioral) that fall into the two harassment categories were described in the previous section.

Because the physiological and behavioral responses of the majority of the marine mammals exposed to MFAS/HFAS and underwater detonations cannot be detected or measured (not all responses visible external to animal, portion of exposed animals underwater (so not visible), many animals located many miles from observers and covering very large area, etc.) and because NMFS must authorize take prior to the impacts to marine mammals, a method is needed to estimate the number of individuals that will be taken, pursuant to the MMPA, based on the proposed action. To this end, NMFS developed acoustic criteria that estimate at what received level (when exposed to MFAS/HFAS or explosive detonations) Level B Harassment, Level A Harassment, and mortality (for explosives) of marine mammals would occur. The acoustic criteria for MFAS/HFAS and Underwater Detonations (IEER) are discussed below.

MFAS/HFAS Acoustic Criteria

Because relatively few applicable data exist to support acoustic criteria specifically for HFAS and because such a small percentage of the active sonar pings that marine mammals will likely be exposed to incidental to this activity come from a HFAS source (the vast majority come from MFAS sources), NMFS will apply the criteria developed for the MFAS to the HFAS as well.

NMFS utilizes three acoustic criteria for MFAS/HFAS: PTS (injury—Level A Harassment), TTS (Level B Harassment), and behavioral harassment (Level B Harassment). Because the TTS and PTS criteria are derived similarly and the PTS criteria was extrapolated from the TTS data, the TTS and PTS acoustic criteria will be presented first, before the behavioral criteria.

For more information regarding these criteria, please see the Navy's DEIS for SOCAL.

Level B Harassment Threshold (TTS)

As mentioned above, behavioral disturbance, acoustic masking, and TTS are all considered Level B Harassment. Marine mammals would usually be behaviorally disturbed at lower received levels than those at which they would likely sustain TTS, so the levels at which behavioral disturbance are likely to occur is considered the onset of Level B Harassment. The behavioral responses of marine mammals to sound are variable, context specific, and, therefore, difficult to quantify (see Risk Function section, below). Alternately, TTS is a

physiological effect that has been studied and quantified in laboratory conditions. Because data exist to support an estimate of at what received levels marine mammals will incur TTS, NMFS uses an acoustic criteria to estimate the number of marine mammals that might sustain TTS. TTS is a subset of Level B Harassment (along with sub-TTS behavioral harassment) and we are not specifically required to estimate those numbers; however, the more specifically we can estimate the affected marine mammal responses, the better the analysis.

A number of investigators have measured TTS in marine mammals. These studies measured hearing thresholds in trained marine mammals before and after exposure to intense sounds. The existing cetacean TTS data are summarized in the following bullets.

- Schlundt *et al.* (2000) reported the results of TTS experiments conducted with 5 bottlenose dolphins and 2 belugas exposed to 1-second tones. This paper also includes a reanalysis of preliminary TTS data released in a technical report by Ridgway *et al.* (1997). At frequencies of 3, 10, and 20 kHz, sound pressure levels (SPLs) necessary to induce measurable amounts (6 dB or more) of TTS were between 192 and 201 dB re 1 μ Pa (EL = 192 to 201 dB re 1 μ Pa²-s). The mean exposure SPL and EL for onset-TTS were 195 dB re 1 μ Pa and 195 dB re 1 μ Pa²-s, respectively.

- Finneran *et al.* (2001, 2003, 2005) described TTS experiments conducted with bottlenose dolphins exposed to 3-kHz tones with durations of 1, 2, 4, and 8 seconds. Small amounts of TTS (3 to 6 dB) were observed in one dolphin after exposure to ELs between 190 and 204 dB re 1 μ Pa²-s. These results were consistent with the data of Schlundt *et al.* (2000) and showed that the Schlundt *et al.* (2000) data were not significantly affected by the masking sound used. These results also confirmed that, for tones with different durations, the amount of TTS is best correlated with the exposure EL rather than the exposure SPL.

- Nachtigall *et al.* (2003) measured TTS in a bottlenose dolphin exposed to octave-band sound centered at 7.5 kHz. Nachtigall *et al.* (2003a) reported TTSs of about 11 dB measured 10 to 15 minutes after exposure to 30 to 50 minutes of sound with SPL 179 dB re 1 μ Pa (EL about 213 dB re μ Pa²-s). No TTS was observed after exposure to the same sound at 165 and 171 dB re 1 μ Pa. Nachtigall *et al.* (2004) reported TTSs of around 4 to 8 dB 5 minutes after exposure to 30 to 50 minutes of sound with SPL 160 dB re 1 μ Pa (EL about 193

to 195 dB re 1 μ Pa²-s). The difference in results was attributed to faster post-exposure threshold measurement—TTS may have recovered before being detected by Nachtigall *et al.* (2003). These studies showed that, for long-duration exposures, lower sound pressures are required to induce TTS than are required for short-duration tones.

- Finneran *et al.* (2000, 2002) conducted TTS experiments with dolphins and belugas exposed to impulsive sounds similar to those produced by distant underwater explosions and seismic waterguns. These studies showed that, for very short-duration impulsive sounds, higher sound pressures were required to induce TTS than for longer-duration tones.

- Finneran *et al.* (2007) conducted TTS experiments with bottlenose dolphins exposed to intense 20 kHz fatiguing tone. Behavioral and auditory evoked potentials (using sinusoidal amplitude modulated tones creating auditory steady state response [AASR]) were used to measure TTS. The fatiguing tone was either 16 (mean = 193 re 1 μ Pa, SD = 0.8) or 64 seconds (185–186 re 1 μ Pa) in duration. TTS ranged from 19–33dB from behavioral measurements and 40–45dB from ASSR measurements.

- Kastak *et al.* (1999a, 2005) conducted TTS experiments with three species of pinnipeds, California sea lion, northern elephant seal and a Pacific harbor seal, exposed to continuous underwater sounds at levels of 80 and 95 dB sensation level at 2.5 and 3.5 kHz for up to 50 minutes. Mean TTS shifts of up to 12.2 dB occurred with the harbor seals showing the largest shift of 28.1 dB. Increasing the sound duration had a greater effect on TTS than increasing the sound level from 80 to 95 dB.

Some of the more important data obtained from these studies are onset-TTS levels (exposure levels sufficient to cause a just-measurable amount of TTS) often defined as 6 dB of TTS (for example, Schlundt *et al.*, 2000) and the fact that energy metrics (sound exposure levels (SEL), which include a duration component) better predict when an animal will sustain TTS than pressure (SPL) alone. NMFS' TTS criteria (which indicate the received level at which onset TTS (>6dB) is induced) for MFAS/HFAS are as follows:

- Cetaceans—195 dB re 1 μ Pa²-s (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low- or high-frequency cetaceans (Southall *et al.* (2007)).

- Harbor Seals (and closely related species)—183 dB re 1 μ Pa²-s
- Northern Elephant Seals (and closely related species)—204 dB re 1 μ Pa²-s

- California Sea Lions (and closely related species)—206 dB re 1 μ Pa²-s.

A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.* (2007), as well as the Navy's SOCAL LOA application. Because they are both otariids, the California sea lion criteria is used to estimate take of northern fur seals for this authorization.

Level A Harassment Threshold (PTS)

For acoustic effects, because the tissues of the ear appear to be the most susceptible to the physiological effects of sound, and because threshold shifts tend to occur at lower exposures than other more serious auditory effects, NMFS has determined that PTS is the best indicator for the smallest degree of injury that can be measured. Therefore, the acoustic exposure associated with onset-PTS is used to define the lower limit of the Level A harassment.

PTS data do not currently exist for marine mammals and are unlikely to be obtained due to ethical concerns. However, PTS levels for these animals may be estimated using TTS data from marine mammals and relationships between TTS and PTS that have been discovered through study of terrestrial mammals. NMFS uses the following acoustic criteria for injury:

- Cetaceans—215 dB re 1 μ Pa²-s (based on mid-frequency cetaceans—no published data exist on auditory effects of noise in low- or high-frequency cetaceans (Southall *et al.* (2007))

- Harbor Seals (and closely related species)—203 dB re 1 μ Pa²-s

- Northern Elephant Seals (and closely related species)—224 dB re 1 μ Pa²-s

- California Sea Lions (and closely related species)—226 dB re 1 μ Pa²-s

These criteria are based on a 20 dB increase in SEL over that required for onset-TTS. Extrapolations from terrestrial mammal data indicate that PTS occurs at 40 dB or more of TS, and that TS growth occurs at a rate of approximately 1.6 dB TS per dB increase in EL. There is a 34-dB TS difference between onset-TTS (6 dB) and onset-PTS (40 dB). Therefore, an animal would require approximately 20 dB of additional exposure (34 dB divided by 1.6 dB) above onset-TTS to reach PTS. A detailed description of how TTS criteria were derived from the results of the above studies may be found in Chapter 3 of Southall *et al.*

(2007), as well as the Navy's SOCAL LOA application. Southall *et al.* (2007) recommend a precautionary dual criteria for TTS (230 dB re 1 μ Pa (SPL peak pressure) in addition to 215 dB re 1 μ Pa²-s (SEL)) to account for the potentially damaging transients embedded within non-pulse exposures. However, in the case of MFAS/HFAS, the distance at which an animal would receive 215 dB (SEL) is farther from the source (*i.e.*, more conservative) than the distance at which they would receive 230 dB (SPL peak pressure) and therefore, it is not necessary to consider 230 dB peak.

We note here that behaviorally mediated injuries (such as those that have been hypothesized as the cause of some beaked whale strandings) could potentially occur in response to received levels lower than those believed to directly result in tissue damage. As mentioned previously, data to support a quantitative estimate of these potential effects (for which the exact mechanism is not known and in which factors other than received level may play a significant role) do not exist. However, based on the number of years (more than 40) and number of hours of MFAS per year that the U.S. (and other countries) has operated compared to the reported (and verified) cases of associated marine mammal strandings, NMFS believes that the probability of these types of injuries is very low.

Level B Harassment Risk Function (Behavioral Harassment)

In 2006, NMFS issued the only MMPA authorization that has, as yet, authorized the take of marine mammals incidental to MFAS (to the Navy for the Rim of the Pacific Exercises (RIMPAC)). For that authorization, NMFS used 173 dB SEL as the criterion for the onset of behavioral harassment (Level B Harassment). This type of single number criterion is referred to as a step function, in which (in this example) all animals estimated to be exposed to received levels above 173 dB SEL would be predicted to be taken by Level B Harassment and all animals exposed to less than 173 dB SEL would not be taken by Level B Harassment. As mentioned previously, marine mammal behavioral responses to sound are highly variable and context specific (affected by differences in acoustic conditions; differences between species and populations; differences in gender, age, reproductive status, or social behavior; or the prior experience of the individuals), which does not support the use of a step function to estimate behavioral harassment.

Unlike step functions, acoustic risk continuum functions (which are also called "exposure-response functions," "dose-response functions," or "stress-response functions" in other risk assessment contexts) allow for probability of a response that NMFS would classify as harassment to occur over a range of possible received levels (instead of one number) and assume that the probability of a response depends first on the "dose" (in this case, the received level of sound) and that the probability of a response increases as the "dose" increases (see Figure 3a). The Navy and NMFS have previously used acoustic risk functions to estimate the probable responses of marine mammals to acoustic exposures for other training and research programs. Examples of previous application include the Navy FEISs on the SURTASS LFA sonar (U.S. Department of the Navy, 2001c), the North Pacific Acoustic Laboratory experiments conducted off the Island of Kauai (Office of Naval Research, 2001), the Supplemental EIS for SURTASS LFA sonar (U.S. Department of the Navy, 2007d) and the FEIS for the Navy's Hawaii Range Complex (U.S. Department of the Navy, 2008). As discussed in the Effects section, factors other than received level (such as distance from or bearing to the sound source) can affect the way that marine mammals respond; however, data to support a quantitative analysis of those (and other factors) do not currently exist. NMFS will continue to modify these criteria as new data become available.

The particular acoustic risk functions developed by NMFS and the Navy (see Figures 2a and 2b) estimate the probability of behavioral responses to MFAS/HFAS (interpreted as the percentage of the exposed population) that NMFS would classify as harassment for the purposes of the MMPA given exposure to specific received levels of MFAS/HFAS. The mathematical function (below) underlying this curve is a cumulative probability distribution adapted from a solution in Feller (1968) and was also used in predicting risk for the Navy's SURTASS LFA MMPA authorization as well.

$$R = \frac{1 - \left(\frac{L - B}{K} \right)^{-A}}{1 - \left(\frac{L - B}{K} \right)^{-2A}}$$

Where:

R = Risk (0–1.0)

L = Received level (dB re: 1 μ Pa)

B = Basement received level = 120 dB re: 1 μ Pa

K = Received level increment above B where 50 percent risk = 45 dB re: 1 μ Pa

A = Risk transition sharpness parameter = 10 (odontocetes and pinnipeds) or 8 (mysticetes)

In order to use this function to estimate the percentage of an exposed population that would respond in a manner that NMFS classifies as Level B Harassment, based on a given received level, the values for B, K and A need to be identified.

B Parameter (Basement)—The B parameter is the estimated received level below which the probability of disruption of natural behavioral patterns, such as migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered approaches zero for the MFAS/HFAS risk assessment. At this received level, the curve would predict that the percentage of the exposed population that would be taken by Level B Harassment approaches zero. For MFAS/HFAS, NMFS has determined that B = 120 dB. This level is based on a broad overview of the levels at which many species have been reported responding to a variety of sound sources.

K Parameter (representing the 50 percent Risk Point)—The K parameter is based on the received level that corresponds to 50 percent risk, or the received level at which we believe 50 percent of the animals exposed to the designated received level will respond in a manner that NMFS classifies as Level B Harassment. The K parameter (K = 45 dB) is based on three data sets in which marine mammals exposed to mid-frequency sound sources were reported to respond in a manner that NMFS would classify as Level B Harassment. There is widespread consensus that marine mammal responses to MFA sound signals need to be better defined using controlled exposure experiments (Cox *et al.*, 2006; Southall *et al.*, 2007). The Navy is contributing to an ongoing behavioral response study in the Bahamas that is expected to provide some initial information on beaked whales, the species identified as the most sensitive to MFAS. NMFS is leading this international effort with scientists from various academic institutions and research organizations to conduct studies on how marine mammals respond to underwater sound exposures. Additionally, the Navy recently tagged whales in conjunction with the 2008 RIMPAC exercises. Until additional data are available, however,

NMFS and the Navy have determined that the following three data sets are most applicable for the direct use in establishing the K parameter for the MFAS/HFAS risk function. These data sets, summarized below, represent the only known data that specifically relate altered behavioral responses (that NMFS would consider Level B Harassment) to exposure—at specific received levels—to MFAS and sources within or having components within the range of MFAS (1–10 kHz).

Even though these data are considered the most representative of the proposed specified activities, and therefore the most appropriate on which to base the K parameter (which basically determines the midpoint) of the risk function, these data have limitations, which are discussed in Appendix F of the Navy's DEIS for SOCAL.

1. Controlled Laboratory Experiments with Odontocetes (SSC Data set)—Most of the observations of the behavioral responses of toothed whales resulted from a series of controlled experiments on bottlenose dolphins and beluga whales conducted by researchers at SSC's facility in San Diego, California (Finneran *et al.*, 2001, 2003, 2005; Finneran and Schlundt, 2004; Schlundt *et al.*, 2000). In experimental trials (designed to measure TTS) with marine mammals trained to perform tasks when prompted, scientists evaluated whether the marine mammals still performed these tasks when exposed to mid-frequency tones. Altered behavior during experimental trials usually involved refusal of animals to return to the site of the sound stimulus, but also included attempts to avoid an exposure in progress, aggressive behavior, or refusal to further participate in tests.

Finneran and Schlundt (2004) examined behavioral observations recorded by the trainers or test coordinators during the Schlundt *et al.* (2000) and Finneran *et al.* (2001, 2003, 2005) experiments. These included observations from 193 exposure sessions (fatiguing stimulus level > 141 dB re 1 μ Pa) conducted by Schlundt *et al.* (2000) and 21 exposure sessions conducted by Finneran *et al.* (2001, 2003, 2005). The TTS experiments that supported Finneran and Schlundt (2004) are further explained below:

- Schlundt *et al.* (2000) provided a detailed summary of the behavioral responses of trained marine mammals during TTS tests conducted at SSC San Diego with 1-sec tones and exposure frequencies of 0.4 kHz, 3 kHz, 10 kHz, 20 kHz and 75 kHz. Schlundt *et al.* (2000) reported eight individual TTS experiments. The experiments were conducted in San Diego Bay. Because of

the variable ambient noise in the bay, low-level broadband masking noise was used to keep hearing thresholds consistent despite fluctuations in the ambient noise. Schlundt *et al.* (2000) reported that “behavioral alterations,” or deviations from the behaviors the animals being tested had been trained to exhibit, occurred as the animals were exposed to increasing fatiguing stimulus levels.

- Finneran *et al.* (2001, 2003, 2005) conducted 2 separate TTS experiments using 1-sec tones at 3 kHz. The test methods were similar to that of Schlundt *et al.* (2000) except the tests were conducted in a pool with very low ambient noise level (below 50 dB re 1 μ Pa²/hertz [Hz]), and no masking noise was used. In the first, fatiguing sound levels were increased from 160 to 201 dB SPL. In the second experiment, fatiguing sound levels between 180 and 200 dB SPL were randomly presented.

Bottlenose dolphins exposed to 1-second (sec) intense tones exhibited short-term changes in behavior above received sound levels of 178 to 193 dB re 1 μ Pa (rms), and beluga whales did so at received levels of 180 to 196 dB and above.

2. Mysticete Field Study (Nowacek *et al.*, 2004)—The only available and applicable data relating mysticete responses to exposure to mid-frequency sound sources is from Nowacek *et al.* (2004). Nowacek *et al.* (2004) documented observations of the behavioral response of North Atlantic right whales exposed to alert stimuli containing mid-frequency components in the Bay of Fundy. Investigators used archival digital acoustic recording tags (DTAG) to record the behavior (by measuring pitch, roll, heading, and depth) of right whales in the presence of an alert signal, and to calibrate received sound levels. The alert signal was 18 minutes of exposure consisting of three 2-minute signals played sequentially three times over. The three signals had a 60 percent duty cycle and consisted of: (1) Alternating 1-sec pure tones at 500 Hz and 850 Hz; (2) a 2-sec logarithmic down-sweep from 4,500 Hz to 500 Hz; and (3) a pair of low (1,500 Hz)-high (2,000 Hz) sine wave tones amplitude modulated at 120 Hz and each 1-sec long. The purposes of the alert signal were (a) to pique the mammalian auditory system with disharmonic signals that cover the whales' estimated hearing range; (b) to maximize the signal to noise ratio (obtain the largest difference between background noise) and (c) to provide localization cues for the whale. The

maximum source level used was 173 dB SPL.

Nowacek *et al.* (2004) reported that five out of six whales exposed to the alert signal with maximum received levels ranging from 133 to 148 dB re 1 μ Pa significantly altered their regular behavior and did so in identical fashion. Each of these five whales: (i) Abandoned their current foraging dive prematurely as evidenced by curtailing their “bottom time”; (ii) executed a shallow-angled, high power (*i.e.* significantly increased fluke stroke rate) ascent; (iii) remained at or near the surface for the duration of the exposure, an abnormally long surface interval; and (iv) spent significantly more time at subsurface depths (1–10 m) compared with normal surfacing periods when whales normally stay within 1 m (1.1 yd) of the surface.

3. Odontocete Field Data (Haro Strait—USS SHOUP)—In May 2003, killer whales (*Orcinus orca*) were observed exhibiting behavioral responses generally described as avoidance behavior while the U.S. Ship (USS) SHOUP was engaged in MFAS in the Haro Strait in the vicinity of Puget Sound, Washington. Those observations have been documented in three reports developed by Navy and NMFS (NMFS, 2005; Fromm, 2004a, 2004b; DON, 2003). Although these observations were made in an uncontrolled environment, the sound field that may have been associated with the active sonar operations was estimated using standard acoustic propagation models that were verified (for some but not all signals) based on calibrated in situ measurements from an independent researcher who recorded the sounds during the event. Behavioral observations were reported for the group of whales during the event by an experienced marine mammal biologist who happened to be on the water studying them at the time. The observations associated with the USS SHOUP provide the only data set available of the behavioral responses of wild, non-captive animals upon actual exposure to AN/SQS-53 sonar.

U.S. Department of Commerce (National Marine Fisheries, 2005a); U.S. Department of the Navy (2004b); Fromm (2004a, 2004b) documented reconstruction of sound fields produced by USS SHOUP associated with the behavioral response of killer whales observed in Haro Strait. Observations from this reconstruction included an approximate closest approach time which was correlated to a reconstructed estimate of received level. Observations from this reconstruction included an estimate of 169.3 dB SPL which

represents the mean level at a point of closest approach within a 500 m wide area which the animals were exposed. Within that area, the estimated received levels varied from approximately 150 to 180 dB SPL.

Calculation of K Parameter—NMFS and the Navy used the mean of the following values to define the midpoint of the function: (1) The mean of the lowest received levels (185.3 dB) at which individuals responded with altered behavior to 3 kHz tones in the SSC data set; (2) the estimated mean received level value of 169.3 dB produced by the reconstruction of the USS SHOUP incident in which killer whales exposed to MFAS (range modeled possible received levels: 150 to 180 dB); and (3) the mean of the 5 maximum received levels at which Nowacek *et al.* (2004) observed significantly altered responses of right whales to the alert stimuli than to the control (no input signal) is 139.2 dB SPL. The arithmetic mean of these three

mean values is 165 dB SPL. The value of K is the difference between the value of B (120 dB SPL) and the 50 percent value of 165 dB SPL; therefore, K = 45.

A Parameter (Steepness)—NMFS determined that a steepness parameter (A) = 10 is appropriate for odontocetes (except harbor porpoises) and pinnipeds and A = 8 is appropriate for mysticetes.

The use of a steepness parameter of A = 10 for odontocetes for the MFAS/HFAS risk function was based on the use of the same value for the SURTASS LFA risk continuum, which was supported by a sensitivity analysis of the parameter presented in Appendix D of the SURTASS/LFA FEIS (U.S. Department of the Navy, 2001c). As concluded in the SURTASS FEIS/EIS, the value of A = 10 produces a curve that has a more gradual transition than the curves developed by the analyses of migratory gray whale studies (Malme *et al.*, 1984; Buck and Tyack, 2000; and SURTASS LFA Sonar EIS, Subchapters 1.43, 4.2.4.3 and Appendix D, and

National Marine Fisheries Service, 2008).

NMFS determined that a lower steepness parameter (A = 8), resulting in a shallower curve, was appropriate for use with mysticetes and MFAS/HFAS. The Nowacek *et al.* (2004) dataset contains the only data illustrating mysticete behavioral responses to a sound source that encompasses frequencies in the mid-frequency sound spectrum. A shallower curve (achieved by using A = 8) better reflects the risk of behavioral response at the relatively low received levels at which behavioral responses of right whales were reported in the Nowacek *et al.* (2004) data. Compared to the odontocete curve, this adjustment results in an increase in the proportion of the exposed population of mysticetes being classified as behaviorally harassed at lower RLs, such as those reported in and is supported by the only dataset currently available.

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Risk Function for Odontocetes and Pinnipeds

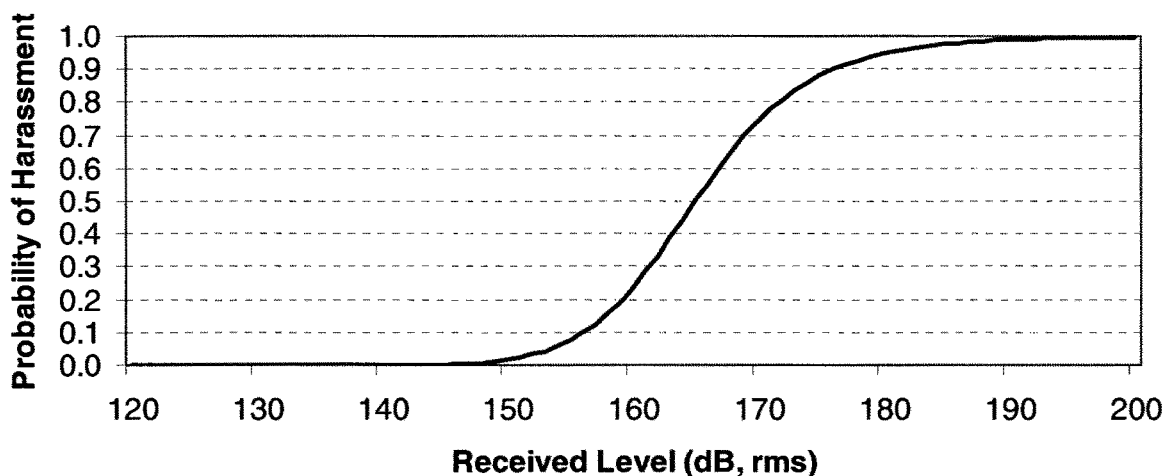


Figure 3a. Risk function for odontocetes and pinnipeds. $B=120$ dB, $K=45$ dB, $A=10$

Risk Function for Mysticetes

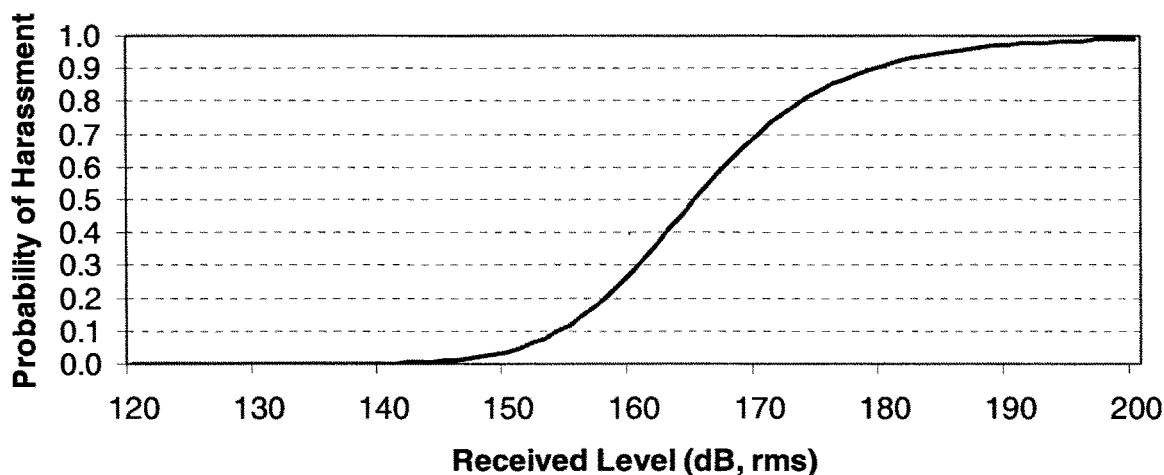


Figure 3b. Risk function for mysticetes. $B=120$ dB, $K=45$ dB, $A=8$.

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Basic Application of the Risk Function—The risk function is used to estimate the percentage of an exposed population that is likely to exhibit behaviors that would qualify as harassment (as that term is defined by the MMPA applicable to military readiness activities, such as the Navy's testing and training with MFAS) at a given received level of sound. For

example, at 165 dB SPL (dB re: 1 μ Pa rms), the risk (or probability) of harassment is defined according to this function as 50 percent, and Navy/NMFS applies that by estimating that 50 percent of the individuals exposed at that received level are likely to respond by exhibiting behavior that NMFS would classify as behavioral harassment. The risk function is not

applied to individual animals, only to exposed populations.

The data primarily used to produce the risk function (the K parameter) were compiled from four species that had been exposed to sound sources in a variety of different circumstances. As a result, the risk function represents a general relationship between acoustic exposures and behavioral responses that

is then applied to specific circumstances. That is, the risk function represents a relationship that is deemed to be generally true, based on the limited, best-available science, but may not be true in specific circumstances. In particular, the risk function, as currently derived, treats the received level as the only variable that is relevant to a marine mammal's behavioral response. However, we know that many other variables—the marine mammal's gender, age, and prior experience; the activity it is engaged in during an exposure event, its distance from a sound source, the number of sound sources, and whether the sound sources are approaching or moving away from the animal—can be critically important in determining whether and how a marine mammal will respond to a sound source (Southall *et al.*, 2007). The data that are currently available do not allow for incorporation of these other variables in the current risk functions; however, the risk function represents the best use of the data that are available.

As more specific and applicable data become available for MFAS/HFAS sources, NMFS can use these data to modify the outputs generated by the risk function to make them more realistic. Ultimately, data may exist to justify the use of additional, alternate, or multi-variate functions. For example, as

mentioned previously, the distance from the sound source and whether it is perceived as approaching or moving away can affect the way an animal responds to a sound (Wartzok *et al.*, 2003). In the SOCAL example, animals exposed to received levels between 120 and 130 dB may be 22–65 nm (41–120 km) from a sound source depending on seasonal variations; those distances could influence whether those animals perceive the sound source as a potential threat, and their behavioral responses to that threat. Though there are data showing response of certain marine mammal species to mid-frequency sound sources at that received level, NMFS does not currently have any data that describe the response of marine mammals to mid-frequency sounds at that distance, much less data that compare responses to similar sound levels at varying distances (much less for MFAS/HFAS). However, if data were to become available, NMFS would re-evaluate the risk function and to incorporate any additional variables into the “take” estimates.

Harbor Porpoise Behavioral Harassment Criteria

The information currently available regarding these inshore species that inhabit shallow and coastal waters suggests a very low threshold level of response for both captive and wild animals. Threshold levels at which both

captive (e.g. Kastelein *et al.*, 2000; Kastelein *et al.*, 2005; Kastelein *et al.*, 2006; Kastelein *et al.*, 2008) and wild harbor porpoises (e.g. Johnston, 2002) responded to sound (e.g. acoustic harassment devices (ADHs), acoustic deterrent devices (ADDs), or other non-pulsed sound sources) is very low (e.g. ~120 dB SPL), although the biological significance of the disturbance is uncertain. Therefore, a step function threshold of 120 dB SPL was used to estimate take of harbor porpoises instead of the risk functions used for other species (i.e., we assume for the purpose of estimating take that all harbor porpoises exposed to 120 dB or higher MFAS/HFAS will be taken by Level B behavioral harassment).

Explosive Detonation Criteria (for IEER)

The criteria for mortality, Level A Harassment, and Level B Harassment resulting from explosive detonations were initially developed for the Navy's Seawolf and Churchill ship-shock trials and have not changed since other MMPA authorizations issued for explosive detonations. The criteria, which are applied to cetaceans and pinnipeds, are summarized in Table 8. Additional information regarding the derivation of these criteria is available in the Navy's DEIS for the SOCAL and in the Navy's CHURCHILL FEIS (U.S. Department of the Navy, 2001c).

Criterion	Criterion Definition	Threshold
Mortality	onset of severe lung injury (1% probability of mortality)	31 psi-ms (positive impulse)
Level A Harassment (Injury)	Slight lung injury; or	13 psi-ms (positive impulse)
	50% of animals exposed would experience ear drum rupture; and 30% exposed sustain PTS	205 dB re 1 microPa ² -s (full spectrum energy)
Level B Harassment	TTS (dual criteria); or	23 psi (peak pressure) (explosives < 2,000 lbs.); or
		182 dB re 1 microPa ² -s (peak 1/3 octave band)

Table 8. Summary of Criteria for Explosive Detonations applicable to IEER

Estimates of Potential Marine Mammal Exposure

Estimating the take that will result from the proposed activities entails the following four general steps: (1) Propagation model estimates animals exposed to sources at different levels; (2) further modeling determines number of exposures to levels indicated in

criteria above (i.e., number of takes); (3) post-modeling corrections refine estimates to make them more accurate; and, (4) mitigation is taken into consideration. More information regarding the models used, the assumptions used in the models, and the process of estimating take is

available in Appendix F of the Navy's DEIS for SOCAL.

(1) In order to quantify the types of take described in previous sections that are predicted to result from the Navy's specified activities, the Navy first uses a sound propagation model that predicts the number of animals that will be exposed to a range of levels of pressure and energy (of the metrics used in the

criteria) from MFAS/HFAS and explosive detonations based on several important pieces of information, including:

- Characteristics of the sound sources.
 - Active sonar source characteristics include: Source level (with horizontal and vertical directivity corrections), source depth, center frequency, source directivity (horizontal/vertical beam width and horizontal/vertical steer direction), and ping spacing.
 - Explosive source characteristics include: The weight of an explosive, the type of explosive, the detonation depth, number of successive explosions.
- Transmission loss (in 13 representative environmental provinces across 8 sonar modeling areas in two seasons) based on: Water depth; sound speed variability throughout the water column (warm season exhibits a weak surface duct, cold season exhibits a relatively strong surface duct); bottom geo-acoustic properties (bathymetry); and wind speed.
- The estimated density of each marine mammal species in the SOCAL (see Table 13), horizontally distributed uniformly and vertically distributed according to dive profiles based on field data.

(2) Next, the criteria discussed in the previous section are applied to the estimated exposures to predict the number of exposures that exceed the criteria, i.e., the number of takes by Level B Harassment, Level A Harassment, and mortality.

(3) During the development of the EIS for SOCAL, NMFS and the Navy determined that the output of the model could be made more realistic by applying post-modeling corrections to account for the following:

- Acoustic footprints for active sonar sources must account for land masses (by subtracting them out).
- Acoustic footprints for active sonar sources should not be added independently, rather, the degree to which the footprints from multiple ships participating in the same exercise would typically overlap needs to be taken into consideration.
- Acoustic modeling should account for the maximum number of individuals of a species that could potentially be exposed to active sonar within the course of 1 day or a discreet continuous sonar event if less than 24 hours.

(4) Mitigation measures are taken into consideration by NMFS and adjustments may be applied to the numbers produced by the Navy's modeled estimates. For example, in some cases the raw modeled numbers of

exposures to levels predicted to result in Level A Harassment from exposure to MFAS/HFAS might indicate that 1 fin whale would be exposed to levels of active sonar anticipated to result in PTS—However, a fin whale would need to be within approximately 10 m of the source vessel in order to be exposed to these levels. Because of the mitigation measures (watchstanders and shutdown zone), size of fin whales, and nature of fin whale behavior, it is highly unlikely that a fin whale would be exposed to those levels, and therefore the Navy would not request authorization for Level A Harassment of 1 fin whale. Table 9 contains the Navy's estimated take estimates.

(5) Last, the Navy's specified activities have been described based on best estimates of the number of MFAS/HFAS hours that the Navy will conduct. The exact number of hours may vary from year to year, but will not exceed the 5-year total indicated in Table 10 (by multiplying the yearly estimate by 5) by more than 10 percent. NMFS estimates that a 10-percent increase in active sonar hours would result in approximately a 10-percent increase in the number of takes, and we have considered this possibility in our analysis.

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Species	Navy's Estimated Sonar Exposures at Indicated Threshold			Navy's Estimated Explosive Exposures at Indicated Thresholds				NMFS Proposed Take Authorization		
	Level B Take		Level A Take	Level B Take		Level A Take	Mortality	Level B	Level A	Mortality
	behavioral	TTS	PTS	sub-TTS	TTS					
Mysticetes										
Blue whale	538	67	1	2	2	0	0	609 (0-1)	0	0
Fin whale	152	12	0	2	1	0	0	167 (0-1)	0	0
Humpback whale	13	2	0	0	0	0	0	15	0	0
Sei whale	0	0	0	0	0	0	0	0	0	0
Bryde's whale	0	0	0	0	0	0	0	0	0	0
Gray whale	4,903	544	1	6	7	0	0	5460 (0-4)	0	0
Minke whale	110	16	0	0	0	0	0	126 (0-16)	0	0
Odontocetes										
Sperm whale	137	8	0	2	1	0	0	148 (0-9)	0	0
Bottlenose dolphin	1,291	194	0	14	10	0	0	1509 (0-101)	0	0
Long beaked common dolphin	4,083	435	1	61	41	1	0	4622 (0-236)	0	0
Northern right whale dolphin	1,340	169	0	19	12	0	0	1540	0	0
Pacific white-sided dolphin	1,184	192	0	12	9	0	0	1397 (0-100)	0	0
Pantropical spotted dolphin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Risso's dolphin	3,157	343	0	57	34	1	0	3592 (0-187)	0	0
Rough-toothed dolphin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Short beaked common dolphin	34,829	3,730	6	528	354	12	4	39441 (0-1940)	0	0
Spinner dolphin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Striped dolphin	1,569	249	1	6	6	0	0	1830 (0-128)	0	0
Dall's porpoise	530	88	0	2	2	0	0	622	0	0
False killer whale	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Killer whale	6	1	0	0	0	0	0	7	0	0
Melon-headed whale	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Pygmy killer whale	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Short-finned pilot whale	39	6	0	0	0	0	0	45	0	0
Dwarf sperm whale	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20*	0	0
Pygmy sperm whale	141	16	0	1	1	0	0	159 (8-17)	0	0
Baird's beaked whale	12	1	0	0	0	0	0	13 (0-1)	0	10 (over 5 years)
Cuvier's beaked whale	383	37	0	5	3	0	0	428 (18-40)	0	
Mesoplodon spp	115	13	0	2	1	0	0	131 (6-14)	0	
Ziphiid whales	86	8	0	2	1	0	0	97 (4-9)	0	
Pinnipeds										
Guadalupe fur seal	870	190	0	2	2	0	0	1064 (0-1)	0	0
Northern elephant seal	833	5	0	76	41	0	0	955 (30-44)	0	0
Pacific harbor seal	1,048	4,562	9	26	26	1	0	5672 (2863-4559)	0	0
California sea lion	54,380	6	0	584	510	16	6	55502 (0-255)	0	0
Northern fur seal	1,072	3	0	90	64	3	1	1229 (0-32)	0	0
Total	112,821	10,897	19	1,499	1,128	34	11	126049	0	10

Table 9. Density and Navy's estimated exposures to indicated criteria and NMFS proposed take authorization. Though exposures are predicted by the model, NMFS does not anticipate any injury/PTS to occur because of the mitigation measures (as related to certain characteristics of animals, such as size, gregariousness, or group size) and likely avoidance behavior of marine mammals. As discussed in the Estimated Take of Marine Mammals Section, NMFS also anticipates fewer takes by TTS will actually occur than were modeled. Anticipated TTS occurrences are indicated in parentheses in the last column (and are already counted within the broad Level B harassment number that NMFS proposes to authorize).

Event	SQS-53C Sonar Hours	SQS-56C Sonar Hours	BQQ-10 Sonar Hours	BQQ-15 Sonar Hours	Total Sonar Hours	AQS-22 Number of Dips	SSQ-62 Number of Sonobuoys	MK-48 Number of Torpedo Events	MK-46 Number of Torpedo Events	AN/SLQ-25A NIXIE Number of Hours
Major Exercise (8/yr)	1,045	261	98	41	1,445	337	2,255	11	28	76
Integrated Exercises (7/yr)	403	101	138	41	683	690	845	15	28	76
ULT & Maintenance	529	132	579	41	1,281	1,692	1,156	61	28	76
Total Annual Hours	1,977	494	815	122	3,408	2,719	4,256	87	84	227

Table 10. Estimated Annual use of each sonar source. Note that values may vary slightly between years but will not exceed 5 times the annual estimate for any source (+/- 10%) over the course of the 5-yr regulations.

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Mortality

Evidence from five beaked whale strandings, all of which have taken place outside the SOCAL Range Complex, and have occurred over approximately a decade, suggests that the exposure of beaked whales to MFAS

in the presence of certain conditions (e.g., multiple units using active sonar, steep bathymetry, constricted channels, strong surface ducts, etc.) may result in strandings, potentially leading to mortality. Although these physical factors believed to have contributed to the likelihood of beaked whale strandings are not present, in their

aggregate, in the SOCAL Study Area, scientific uncertainty exists regarding what other factors, or combination of factors, may contribute to beaked whale strandings. Accordingly, to account for scientific uncertainty regarding contributing causes of beaked whale strandings and the exact behavioral or physiological mechanisms that can lead

to the ultimate physical effects (stranding and/or death), the Navy has requested authorization for take, by serious injury or mortality of 10 beaked whales over the course of the 5-yr regulations. Neither NMFS nor the Navy anticipates that marine mammal strandings or mortality will result from the operation of MFAS during Navy exercises within the SOCAL Range Complex.

Effects on Marine Mammal Habitat

The Navy's proposed training exercises could potentially affect marine mammal habitat through the introduction of sound into the water column, impacts to the prey species of marine mammals, bottom disturbance, or changes in water quality. Each of these components was considered in the SOCAL DEIS and was determined by the Navy to have no effect on marine mammal habitat. Based on the information below and the supporting information included in the Navy's DEIS, NMFS has preliminarily determined that the SOCAL training activities will not have adverse or long-term impacts on marine mammal habitat. A summary of the conclusions is included in subsequent sections.

There is no marine mammal critical habitat (designated under the ESA) or known specific breeding areas within the SOCAL Range Complex with the exception of pinnipeds (e.g., seals and sea lions). Much is unknown about the specifics of dolphin mating, but it is presumed that these species mate throughout their habitat and possibly throughout the year. Even less is known about the mating habits of beaked whales. Most of the offshore area within the SOCAL Range Complex study area could potentially be utilized for active sonar activities or underwater detonations. The Navy assumes that active sonar activities could take place within potential mating areas of these toothed whale species within SOCAL, although current state of knowledge is very limited and there may be seasonal components to distribution that could account for breeding activities outside of the SOCAL Range Complex. Baleen whales and sperm whales breed in deep tropical and subtropical waters south and west of the SOCAL Range Complex.

Unless the sound source or explosive detonation is stationary and/or continuous over a long duration in one area, the effects of the introduction of sound into the environment are generally considered to have a less severe impact on marine mammal habitat than the physical alteration of the habitat. Marine mammals may be temporarily displaced from areas where

Navy training is occurring, but the area will be utilized again after the activities have ceased.

Effects on Food Resources

Fish

The Navy's DEIS includes a detailed discussion of the effects of active sonar on marine fish. In summary, studies have indicated that acoustic communication and orientation of fish may be restricted by anthropogenic sound in their environment. However, the vast majority of fish species studied to date are hearing generalists and cannot hear sounds above 500 to 1,500 Hz (0.5 to 1.5 kHz) (depending upon the species), and therefore, there are not likely to be behavioral effects on these species from higher frequency sounds such as MFAS/HFAS. Moreover, even those marine species that may hear above 1.5 kHz, such as a few sciaenids and the clupeids (and relatives), have relatively poor hearing above 1.5 kHz as compared to their hearing sensitivity at lower frequencies, so it is likely that the fish will only actually hear the sounds if the fish and source were fairly close to one another. And, finally, since the vast majority of sounds that are of biological relevance to fish are below 1 kHz (e.g., Zelick *et al.*, 1999; Ladich and Popper, 2004), even if a fish detects a mid- or high-frequency sound, these sounds will not likely mask detection of lower frequency biologically relevant sounds. Thus, a reasonable conclusion, even without more data, is that there will be few, and more likely no, impacts on the behavior of fish from active sonar.

Though mortality has been shown to occur in one species, a hearing specialist, as a result of exposure to non-impulsive sources, the available evidence does not suggest that exposures such as those anticipated from MFAS/HFAS would result in significant fish mortality on a population level. The mortality that was observed was considered insignificant in light of natural daily mortality rates. Experiments have shown that exposure to loud sound can result in significant threshold shifts in certain fish that are classified as hearing specialists (but not those classified as hearing generalists). Threshold shifts are temporary, and considering the best available data, no data exist that demonstrate any long-term negative effects on marine fish from underwater sound associated with active sonar activities. Further, while fish may respond behaviorally to mid-frequency sources, this behavioral modification is only expected to be brief and not biologically significant.

There are currently no well-established thresholds for estimating effects to fish from explosives other than mortality models. Fish that are located in the water column, in proximity to the source of detonation could be injured, killed, or disturbed by the impulsive sound and possibly temporarily leave the area. Continental Shelf Inc. (2004) summarized a few studies conducted to determine effects associated with removal of offshore structures (e.g., oil rigs) in the Gulf of Mexico. Their findings revealed that at very close range, underwater explosions are lethal to most fish species regardless of size, shape, or internal anatomy. For most situations, cause of death in fishes has been massive organ and tissue damage and internal bleeding. At longer range, species with gas-filled swimbladders (e.g., snapper, cod, and striped bass) are more susceptible than those without swimbladders (e.g., flounders, eels). Studies also suggest that larger fishes are generally less susceptible to death or injury than small fishes. Moreover, elongated forms that are round in cross section are less at risk than deep-bodied forms; and orientation of fish relative to the shock wave may affect the extent of injury. Open water pelagic fish (e.g., mackerel) also seem to be less affected than reef fishes. The results of most studies are dependent upon specific biological, environmental, explosive, and data recording factors.

The huge variations in the fish population, including numbers, species, sizes, and orientation and range from the detonation point, make it very difficult to accurately predict mortalities at any specific site of detonation. However, most fish species experience a large number of natural mortalities, especially during early life-stages, and any small level of mortality caused by the SOCAL training exercises involving explosives will likely be insignificant to the population as a whole.

Invertebrates

Oceanographic features and bottom topography south of Point Conception produce localized turbulence, mixing, and increased surface nutrients which in turn support aggregations of primary and secondary production such as krill (Euphausiids) (Fiedler *et al.*, 1998). Off the California coast, zooplankton biomass tends to reach its maximum abundance in the summer months and main prey species for marine mammals found within Southern California include *Euphausia pacifica* and *Thysanoessa spinifera* both of which are relatively cold water species, produced locally along the southern California coast (Brinton, 1976; Brinton, 1981).

Swarms of *E. pacifica* are most abundant off Channel Island shelf edges between 150–200 m during daylight, with vertical migration to the surface at night (Fiedler *et al.*, 1998). *T. spinifera* is a more coastal species, highly favored by blue whales (*Balaenoptera musculus*), and found during daylight from 50–150 m particularly on shelf areas northwest of San Miguel Island, and north of Santa Rosa Island (Fiedler *et al.*, 1998).

Very little is known about sound detection and use of sound by invertebrates (see Budelmann, 1992a, b; Popper *et al.*, 2001 for reviews). The limited data shows that some crabs are able to detect sound, and there has been the suggestion that some other groups of invertebrates are also able to detect sounds. In addition, cephalopods (octopus and squid) and decapods (lobster, shrimp, and crab) are thought to sense low-frequency sound (Budelmann, 1992b). Packard *et al.*, (1990) reported sensitivity to sound vibrations between 1–100 Hz for three species of cephalopods. McCauley *et al.*, (2000) found evidence that squid exposed to seismic airguns show a behavioral response including inking. However, these were caged animals, and it is not clear how unconfined animals may have responded to the same signal and at the same distances used. In another study, Wilson *et al.*, (2007) played back echolocation clicks of killer whales to two groups of squid (*Loligo pealeii*) in a tank. The investigators observed no apparent behavioral effects or any acoustic debilitation from playback of signals up to 199 to 226 dB re 1 μ Pa. It should be noted, however, that the lack of behavioral response by the squid may have been because the animals were in a tank rather than being in the wild. In another report on squid, Guerra *et al.* (2004) claimed that dead giant squid turned up around the time of seismic airgun operations off of Spain. The authors suggested, based on analysis of carcasses, that the damage to the squid was unusual when compared to other dead squid found at other times. However, the report presents conclusions based on a correlation to the time of finding of the carcasses and seismic testing, but the evidence in support of an effect of airgun activity was totally circumstantial. Moreover, the data presented showing damage to tissue is highly questionable since there was no way to differentiate between damage due to some external cause (e.g., the seismic airgun) and normal tissue degradation that takes place after death, or due to poor fixation and preparation of tissue. To date, this work has not

been published in peer reviewed literature, and detailed images of the reportedly damaged tissue are also not available.

In summary, baleen whales feed on the aggregations of krill and small schooling fish within Southern California, while toothed whales feed on epipelagic, mesopelagic, and bathypelagic fish and squid. As summarized above and in the SOCAL Range Complex DEIS in more detail, potential impacts to marine mammal food resources within the SOCAL Range Complex is negligible given both lack of hearing sensitivity to MFAS, the very geographic and spatially limited scope of most Navy at sea activities including underwater detonations, and the high biological productivity of these resources. No short or long term effects to marine mammal food resources from Navy activities are anticipated within the SOCAL Range Complex.

Bottom Disturbance

The current Shallow Water Training Range (SWTR) instrumentation is to be extended out from SOAR, to include one 250-nm² (463-km²) area to the west in the area of the Tanner/Cortes Banks, and one 250-nm² (463-km²) area between SOAR and the southern section of SCI. The SWTR instrumentation is a system of underwater acoustic transducer devices, called nodes, connected by cable to each other and to a land-based facility where the collected range data are used to evaluate the performance of participants in shallow water training exercises. The transducer nodes are capable of both transmitting and receiving acoustic signals from ships operating within the SWTR Extension.

Since the exact cable route has not been decided, it is not possible to determine if sensitive habitat will be affected by the SWTR Extension. The marine biological resource that could be most affected is the white abalone, and anywhere the cable crosses between 65 to 196 ft (20 to 60 m) and there is rocky substrate, there is the possibility of affecting white abalone or disrupting abalone habitat. Assuming that rocky substrate is avoided throughout the cable corridor, the activities that could affect marine biological resources are associated with the construction of the SWTR Extension. Direct impact and mortality of marine invertebrates at each node and from burial of the trunk cable would occur. Assuming that 300 transducer nodes will be used, approximately 65,400 ft² (6,075 m²) of soft bottom habitat would be affected, and also assuming that 14 nm (25.9 km) of the trunk cable will be buried

(assuming a width of 7.8 inches [20 cm], which is twice the wide of the trench to account for sidecasted material), approximately 55,757 ft² (5,180 m²) of soft bottom habitat would be affected. Soft bottom habitats are not considered sensitive habitats and generally support lower biological diversity than hard substrate habitats. Soft bottom organisms are also generally opportunistic and would be expected to rapidly re-colonize the disturbed areas. Localized turbidity during installation may also temporarily impact suspension feeding invertebrates in the vicinity of the cable corridor and nodes. Therefore, assuming that rocky substrate is avoided, impacts to marine biological resources from the SWTR Extension are anticipated to be minimal.

Water Quality

The SOCAL Range Complex EIS analyzed the potential effects to water quality from sonobuoy, Acoustic Device Countermeasures (ADC), and Expendable Mobile Acoustic Training Target (EMATT) batteries; explosive packages associated with the explosive source sonobuoy (AN/SSQ-110A), and Otto Fuel (OF) II combustion byproducts associated with torpedoes. Expendable Bathymeters do not have batteries and were not included in the analysis. In addition, sonobuoys were not analyzed since, once scuttled, their electrodes are largely exhausted during operations and residual constituent dissolution occurs more slowly than the releases from activated seawater batteries. As such, only the potential effects of batteries and explosions on marine water quality in and surrounding the sonobuoy operation area were completed. It was determined that there would be no significant effect to water quality from seawater batteries, lithium batteries, and thermal batteries associated with scuttled sonobuoys. ADCs and EMATTs use lithium sulfur dioxide batteries. The constituents in the battery react to form soluble hydrogen gas and lithium dithionite. The hydrogen gas eventually enters the atmosphere and the lithium hydroxide dissociates, forming lithium ions and hydroxide ions. The hydroxide is neutralized by the hydronium formed from hydrolysis of the acidic sulfur dioxide, ultimately forming water. Sulfur dioxide, a gas that is highly soluble in water, is the major reactive component in the battery. The sulfur dioxide ionizes in the water, forming bisulfite (HSO₃) that is easily oxidized to sulfate in the slightly alkaline environment of the ocean. Sulfur is present as sulfate in large quantities (i.e., 885 milligrams per liter [mg/L]) in

the ocean. Thus, it was determined that there would be no significant effect to water quality from lithium sulfur batteries associated with scuttled ADCs and EMATTs.

Only a very small percentage of the available hydrogen fluoride explosive product in the explosive source sonobuoy (AN/SSQ-110A) is expected to become solubilized prior to reaching the surface and the rapid dilution would occur upon mixing with the ambient water. As such, it was determined that there would be no significant effect to water quality from the explosive product associated with the explosive source sonobuoy (AN/SSQ-110A).

OF II is combusted in the torpedo engine and the combustion byproducts are exhausted into the torpedo wake, which is extremely turbulent and causes rapid mixing and diffusion. Combustion byproducts include carbon dioxide, carbon monoxide, water, hydrogen gas, nitrogen gas, ammonia, hydrogen cyanide, and nitrogen oxides. All of the byproducts, with the exception of hydrogen cyanide, are below the United States Environmental Protection Agency (EPA) water quality criteria. Hydrogen cyanide is highly soluble in seawater and dilutes below the USEPA criterion within 6.3 m (20.7 ft) of the torpedo. Therefore, it was determined there would be no significant effect to water quality as a result of OF II.

Analysis and Negligible Impact Determination

Pursuant to NMFS regulations implementing the MMPA, an applicant is required to estimate the number of animals that will be "taken" by the specified activities (i.e., takes by harassment only, or takes by harassment, injury, and/or death). This estimate informs the analysis that NMFS must perform to determine whether the activity will have a "negligible impact" on the affected species or stock. Level B (behavioral) harassment occurs at the level of the individual(s) and does not assume any resulting population-level consequences, though there are known avenues through which behavioral disturbance of individuals can result in population-level effects (for example:

pink-footed geese (*Anser brachyrhynchus*) in undisturbed habitat gained body mass and had about a 46-percent reproductive success compared with geese in disturbed habitat (being consistently scared off the fields on which they were foraging) which did not gain mass and has a 17-percent reproductive success). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), or any of the other variables mentioned in the first paragraph (if known), as well as the number and nature of estimated Level A takes, the number of estimated mortalities, and effects on habitat. Generally speaking, and especially with other factors being equal, the Navy and NMFS anticipate more severe effects from takes resulting from exposure to higher received levels (though this is in no way a strictly linear relationship throughout species, individuals, or circumstances) and less severe effects from takes resulting from exposure to lower received levels.

The Navy's specified activities have been described based on best estimates of the number of MFAS/HFAS hours that the Navy will conduct. The exact number of hours (or torpedoes, or pings, whatever unit the source is estimated in) may vary from year to year, but will not exceed the 5-year total indicated in Table 10 (by multiplying the yearly estimate by 5) by more than 10 percent. NMFS estimates that a 10 percent increase in active sonar hours (torpedoes, pings, etc.) would result in approximately a 10 percent increase in the number of takes, and we have considered this possibility and the effect

of the additional active sonar use in our analysis.

Taking the above into account, considering the sections discussed below, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that Navy training exercises utilizing MFAS/HFAS and underwater detonations will have a negligible impact on the marine mammal species and stocks present in the SOCAL Range Complex.

Behavioral Harassment

As discussed in the Potential Effects of Exposure of Marine Mammals to MFAS/HFAS and illustrated in the conceptual framework, marine mammals can respond to MFAS/HFAS in many different ways, a subset of which qualify as harassment (see Behavioral Harassment Section). One thing that the take estimates do not take into account is the fact that most marine mammals will likely avoid strong sound sources to one extent or another. Although an animal that avoids the sound source will likely still be taken in some instances (such as if the avoidance results in a missed opportunity to feed, interruption of reproductive behaviors, etc.) in other cases avoidance may result in fewer instances of take than were estimated or in the takes resulting from exposure to a lower received level than was estimated, which could result in a less severe response. For MFAS/HFAS, the Navy provided information (Table 11) estimating what percentage of the total takes that will occur within the 10-dB bins (without considering mitigation or avoidance) that are within the received levels considered in the risk continuum and for TTS and PTS. This table applies specifically to 53C hull-mounted active sonar (the most powerful source), with less powerful sources the percentages would increase slightly in the lower received levels and correspondingly decrease in the higher received levels. As mentioned above, an animal's exposure to a higher received level is more likely to result in a behavioral response that is more likely to adversely affect the health of the animals.

Received Level (SPL)	Distance At Which Levels Occur in SOCAL (warm season / cold season)	Percent of Total Harassment Takes Estimated to Occur at Indicated Level (warm season/ cold season)
Below 140 dB	8.3 km - 40 km / 44 km - 140 km	< 1%
140 < Level < 150 dB	3.4 km - 8.3 km / 19 km - 44 km	2%
150 < Level < 160 dB	1.3 km - 3.4 km / 6.7 km - 19 km	16% / 19%
160 < Level < 170 dB	0.5 km - 1.3 km / 2.2 km - 6.7 km	36% / 42%
170 < Level < 180 dB	200 m - 500 m / 680 m - 2200 m	27% / 26%
180 < Level < 190 dB	100 m - 200 m / 210 m - 680 m	12% / 10%
Above 190 dB	within 100 m / 210 m	< 3% / < 1%

Table 11. Approximate percent of estimated takes that occur in the indicated 10-dB bins for AN/SQS-53 (the most powerful source). For smaller sources, a higher % of the takes occur at lower levels, and a lower % at higher levels.

Because the Navy has only been monitoring specifically to discern the effects of MFAS/HFAS on marine mammals since approximately 2006, and because of the overall data gap regarding the effects of MFAS/HFAS on marine mammals, not a lot is known regarding how marine mammals in the SOCAL Range Complex will respond to MFAS/HFAS. For the 12 MTEs for which NMFS has received a monitoring report, no instances of obvious behavioral disturbance were observed by the Navy watchstanders in the 704 marine mammal sightings of 7435 animals (9000+ hours of effort, though only 4 of the 12 reports reported the total number of hours of observation). One cannot conclude from these results that marine mammals were not harassed from MFAS/HFAS, as a portion of animals within the area of concern were not seen (especially those more cryptic, deep-diving species, such as beaked whales or *Kogia* spp.) and some of the non-biologist watchstanders might not be well-qualified to characterize behaviors. However, one can say that the animals that were observed did not respond in any of the obviously more severe ways, such as panic, aggression, or anti-predator response.

In addition to the monitoring that will be required pursuant to these regulations and any corresponding LOAs, which is specifically designed to help us better understand how marine mammals respond to sound, the Navy and NMFS have developed, funded, and begun conducting a controlled exposure experiment with beaked whales in the Bahamas. Separately, the Navy and NMFS conducted an opportunistic tagging experiment with beaked whales in the area of the 2008 Rim of the Pacific training exercises in the HRC.

Diel Cycle

As noted previously, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hr cycle). Substantive behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant if they last more than one diel cycle or recur on subsequent days (Southall *et al.*, 2007). Consequently, a behavioral response lasting less than one day and not recurring on subsequent days is not considered particularly severe unless it could directly affect reproduction or survival (Southall *et al.*, 2007).

In the previous section, we discussed the fact that potential behavioral responses to MFAS/HFAS that fall into the category of harassment could range in severity. By definition, the takes by behavioral harassment involve the disturbance of a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns (such as migration, surfacing, nursing, breeding, feeding, or sheltering) to a point where such behavioral patterns are abandoned or significantly altered. These reactions would, however, be more of a concern if they were expected to last over 24 hours or be repeated in subsequent days. For hull-mounted active sonar (the highest power source), approximately 27 percent of the hours of source use are comprised of Unit Level Training or maintenance activities that occur in events of 4 hours or less. Integrated Unit Level Training or Major Training events typically last more than one day, however, active sonar use is not continuous and the exercises take place over very large areas, up to 50,000 nm²). Additionally, during times of continuous sonar use (parts of some ASW exercises), vessels with hull-

mounted active sonar are typically moving at speeds of 10–12 knots. NMFS believes that it is unlikely that animals would be exposed to MFAS/HFAS at levels or for a duration likely to result in a substantive response that would then be carried on for more than one day or on successive days.

TTS

NMFS and the Navy have estimated that some individuals of some species of marine mammals may sustain some level of TTS from MFAS/HFAS. As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths. Table 9 indicates the estimated number of animals that might sustain TTS from exposure to MFAS/HFAS. The TTS sustained by an animal is primarily classified by three characteristics:

- Frequency—Available data (of mid-frequency hearing specialists exposed to mid to high frequency sounds—Southall *et al.*, 2007) suggest that most TTS occurs in the frequency range of the source up to one octave higher than the source (with the maximum TTS at ½ octave above). The two hull-mounted MFAS sources, the DICASS sonobuoys, and the helicopter dipping sonar have center frequencies between 3.5 and 8 kHz and the other unidentified MF sources are, by definition, less than 10 kHz, which suggests that TTS induced by any of these MF sources would be in a frequency band somewhere between approximately 2 and 20 kHz. There are far fewer hours of HF source use and the sounds would attenuate more quickly, but if an animal were to incur TTS from these sources, it would cover a higher frequency range (sources are between 20 and 100 kHz, which means that TTS could range up to 200 kHz, however, HF systems are typically used less frequently and for shorter time periods

than surface ship and aircraft MF systems, so TTS from these sources is even less likely). TTS from explosives would be broadband. Tables 12a and 12b summarize the vocalization data for each species.

- Degree of the shift (i.e., how many dB is the sensitivity of the hearing reduced by)—generally, both the degree of TTS and the duration of TTS will be greater if the marine mammal is exposed to a higher level of energy (which would occur when the peak dB level is higher or the duration is longer). The threshold for the onset of TTS (> 6 dB) is 195 dB

(SEL), which might be received at distances of up to 140 m from the most powerful MFAS source, the AN/SQS-53 (the maximum ranges to TTS from other sources would be less, as modeled for SOCAL). An animal would have to approach closer to the source or remain in the vicinity of the sound source appreciably longer to increase the received SEL, which would be difficult considering the watchstanders and the nominal speed of an active sonar vessel (10–12 knots). Of all TTS studies, some using exposures of almost an hour in

duration or up to 217 SEL, most of the TTS induced was 15 dB or less, though Finneran *et al.* (2007) induced 43 dB of TTS with a 64-sec exposure to a 20 kHz source (MFAS emits a 1-s ping 2 times/minute).

- Duration of TTS (Recovery time)—see above. Of all TTS laboratory studies, some using exposures of almost an hour in duration or up to 217 SEL, almost all recovered within 1 day (or less, often in minutes), though in one study (Finneran *et al.* (2007)), recovery took 4 days.

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Species	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 µPa)	Duration / Other
Blue whale	moans, long duration songs	0.012 - .4	.012 - .025	188	up to 36 s, repeated every 1 - 2 min
	FM sweeps	0.858 ± 0.148			< 5 s
	vocalizations	0.012 - .4	.012 - .025		
Fin whale	vocalizations	- / .015 - .028	- / -	159-184 / 185-192	
	moans	0.016 - 0.75	0.02	160-190	
	pulses	0.04 - 0.075 / 0.018 - 0.025	- / 0.02		
	ragged pulse	< 0.03			
	rumbles	- / 0.01 - 0.03	< 0.03 / -		
	moans, downsweeps	0.014 - 0.118	0.02	160-186	
	constant call	0.02 - 0.04			
	moans, tones, upsweeps	0.03 - 0.75		155-165	
	whistles, chirps	1.5 - 5	1.5 - 2.5		
	clicks	16 - 28			
	vocal sequence, ♂ only	0.015 - 0.03			
	FM sweeps	0.018 - .23		184 - 186	1 s
Humpback whale	social	0.020 - 10 / 0.05 - 10	<3 / 0.1 - 4		
	songs	0.03 - 8 / -	0.12 - 4 / -	144 - 186 / 151-173	
	shrieks		0.75 - 1.8	179-181	
	horn blasts		0.41 - 0.42	181-185	
	moans	0.02 - 1.8	0.035 - 0.36	175	
	grunts	0.025 - 1.9		190	
	pulse trains	0.025 - 1.25	0.025 - 0.080	179-181	
	slap	0.03 - 1.2		183-192	
	feeding calls	0.02 - 2	0.5	162 - 192	< 1 s
	simple vocalization	0.14 - 4	0.22 (mean)		
Humpback whale, Calf	FM sweeps	1.5 - 3.5			7 to 20 sweeps lasting 4 ms
	growls, whooshes, tonal calls	0.433		156	.45 s
	growls and whooshes	0.241 - 0.625		152.4 - 159.6	
Bryde's whale	moans	0.07 - 0.245	0.124 - 0.132	152-174	0.25 to several s
	pulsed moans	0.1 - 0.93	0.165 - 0.9		
	discrete pulses	0.7 - 0.95	0.7 - 0.9		
	call	< 0.06			0.25 to several s
Gray whale	broadband signals	0.1 - 12			
	call	0.2 - 2.5	1 - 1.5		
	moans	0.02 - 1.2 / -	0.2 - 0.2 / 0.7 - 1.2	185 / -	
	modulated pulse	0.08 - 1.8	0.225 - 0.6		
	FM sweeps	0.10 - 0.35	0.3		
	pulses	0.1 - 2	0.3 - 0.825		
Gray whale, Calf	clicks	0.1 - 20	3.4 - 4		
Minke whale	sweeps, moans	0.06 - 0.14		151-175	
	down sweeps	0.06 - 0.13		165	
	moans, grunts	0.06 - 0.14	0.06 - 0.14	151-175	
	ratchet	0.85 - 6	0.85		
	thump trains	0.1 - 2	0.1 - 0.2		
	speed up pulse train	0.2 - 0.4			40 to 60 ms
	slow down pulse train	0.25 - 0.35			70 to 140 ms
	Star Wars vocalization	0.05 - 9.4		150-165	
	Breeding Boings (pulse then amp-mod. call)	1.3 - 1.4			2.5 s with slight frequency modulation
	vocalizations	0.06 - 12			

Table 12a. Summary of mysticete vocalization information compiled from The Biology of Marine Mammals (Reynolds and Rommel (eds), 1999) and the Navy's SOCAL, AFAST, and HRC EISs - see those documents for specific information.

Species	Signal Type	Frequency Range (kHz)	Frequency Near Max energy (kHz)	Source Level (dB re 1 μ Pa)	Duration / Other
Sperm whale	clicks	0.1 - 30	2 - 4, 10 - 16	160 - 180	< 30 ms
	short clicks			236	< 1 μ s, highly directional
	trumpets			172	
Sperm whale, Neonate	clicks		0.5	140 - 162	< 2 to 12 ms, low directionality
Bottlenose dolphin	whistles	0.8 - 24	3.5 - 14.5	125-173	
	whistle	4 - 20			
	click	0.2 - 150	30 - 60		
	click		110 - 130	218 - 228	
	clicks and burst-pulses	110 - 130		218 - 228	
Long-beaked common dolphin	bark	0.2 - 16			
	clicks	23 - 67			
Northern right whale dolphin	whistles	0.5 - 18			
	clicks high repetition		170		
	echolocation clicks	23 - 41			
Pacific white-sided dolphin	whistles, tones	16-160	1.8, 1		
	whistles	002 - 02	12-Apr		
	pulse trains for echolocation	-/-	50 - 80 / 60 - 80	170 / 180	
Pantropical spotted Dolphin	whistles	3.1 - 21.4	6.7 - 17.8		
	pulse	up to 150			
	clicks	40 - 140		up to 220	
Risso's dolphin	whistles		3.5 - 4.5		
	rasp / pulse burst	0.1 - > 8	2 - 5		
	click		65	~120	
	whistle / burst	4 - 22			< 1 sec to several s
	broadband clicks	6 - > 22			
	narrowband grunts	0.4 - 0.8			
	echolocation clicks	30 - 50, 80 - 100		up to 216	< 40 - 70 μ s
	echolocation clicks		50 - 65	up to 222	
	clicks				
Rough-toothed dolphin	whistles	0.3 - 24			< 1 s
	whistles		4 - 7		
	clicks	0.1 - 200	25		< 250 μ sec
	clicks		5 - 32		
Common dolphin	whistles, chirps		0.5 - 18		
	whistles	4 - 16			
	click	0.2 - 150	30 - 60	170	
	clicks		23 - 67		
	chirps and barks	0.5 - 14			
	whistles	2 - 18		180	
Spinner dolphin	pulse	1 - 160	5 - 60		
	whistles	1 - 20 / 1 - 22.5	8 - 12 / 6.8 - 17.9		
	echolocation clicks	up to 65		195 - 222	
	click	1 - 160	60		
Striped dolphin	whistles	1 - 22.5	6.8 - 16.9	109-125	
	whistles	6 - 24	8 - 12.5		
	pulse bursts	wideband	5 - 60	108-115	
Dall's porpoise	clicks		120 - 160		50 to 1,500 μ sec
	clicks	0.04 - 12 / -	- / 135 - 149	120 - 148 / 165-175	
False killer whale	whistles		4 - 9.5		
	clicks		25 - 30, 95 - 130	220-228	
	echolocation clicks	20 - 130	40	201 - 225	
Killer whale	whistles	1.5 - 18	6 - 12		
	clicks	0.1 - 35 / 0.25 - 0.5	12 - 25	180	
	scream	2			
	pulsed calls	0.5 - 25	1 - 6	160	
Canadian killer whale	echolocation clicks		45 - 80	195 - 224	< 80 - 120 μ s
Norwegian killer whale	echolocation clicks		22 - 49	173 - 202	< 31 - 203 μ s
Melon-headed whale	whistles	8 to 12		155	
	clicks	20 - 40		165	
Pygmy killer whale	clicks	45 - 117	70 - 85	197-224	
Short-finned pilot whale	whistles	0.5 - > 20	2 to 14	180	
	click		10 - 60	180	
Dwarf sperm whale	clicks	13-33			0.1 - 0.5 s
Pygmy sperm whale	clicks	60 - 200	120		
	narrowband pulses		129	175	119 μ s, interclick intervals 40-70 ms
	echolocation clicks	60 - 200	120 - 130		
Baird's beaked whale	echolocation	3 - 129			
	social	0.002 - 0.016			
Cuvier's beaked whale	echolocation clicks	20 - 40, 20 - 70		214	< 200 to 250 μ s, depths > 200 m
	whistles	8 - 12			upsweep lasts 1 s
	pulses	13 - 17			15 to 44 s
Blainville's beaked whale	whistles, chirps	< 1 - 6			
	whistles	2.6 - 10.7			
	echolocation clicks	20 - 40		200 - 220	< 175 μ s, depths > 200 m
Hubb's beaked whale	pulses	0.3 - 80	0.3 - 2		
Perrin's beaked whale					
Pygmy beaked whale					
Ginkgo-toothed beaked whale					
Guadalupe fur seal					
Northern elephant seal					
Pacific harbor seal	communication	100 - 1			
	clicks	8 - 150	12 - 40		
	roar	0.4 - 4	0.4 - 0.8		
	growl, grunt, groan	< 0.1 - 0.4	< 0.1 - 0.25		
	creak	0.7 - 4	0.7 - 2		
California sea lion	barks	< 8	< 3.5		
	whinny	< 1 - 3			
	clicks		0.5 - 4		
	buzzing	< 1 - 4	< 1		
Northern fur seal	clicks, bleats				

Table 12b Summary of odontocete and pinniped vocalization information compiled from The Biology of Marine Mammals (Reynolds and Ronnel (eds), 1999) and the Navy's SOFAL, AFAST and HRC EISs - see those documents for specific information

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Based on the range of degree and duration of TTS reportedly induced by exposures to non-pulse sounds of

energy higher than that to which free-swimming marine mammals in the field are likely to be exposed during MFAS/HFAS training exercises, it is unlikely

that marine mammals would sustain a TTS from MFAS that alters their sensitivity by more than 20 dB for more than a few days (and the majority would

be far less severe). Also, for the same reasons discussed in the Diel Cycle section, and because of the short distance within which animals would need to approach the sound source, it is unlikely that animals would be exposed to the levels necessary to induce TTS in subsequent time periods such that their recovery were impeded. Additionally (see Tables 12a and 12b), though the frequency range of TTS that marine mammals might sustain would overlap with some of the frequency ranges of their vocalization types, the frequency range of TTS from MFAS (the source from which TTS would more likely be sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations. If impaired, marine mammals would typically be aware of their impairment and implement behaviors to compensate for it (see Communication Impairment Section), though these compensations may incur energetic costs.

Acoustic Masking or Communication Impairment

Table 12 is also informative regarding the nature of the masking or communication impairment that could potentially occur from MFAS (again, center frequencies are 3.5 and 7.5 kHz for the two types of hull-mounted active sonar). However, masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which occurs continuously for its duration. Standard MFAS pings last on average one second and occur about once every 24–30 seconds for hull-mounted sources. When hull-mounted active sonar is used in the Kingfisher mode, pulse length is shorter, but pings are much closer together (both in time and space, since the vessel goes slower when operating in this mode). For the sources for which we know the pulse length, most are significantly shorter than hull-mounted active sonar, on the order of several microseconds to 10s of micro seconds. For hull-mounted active sonar, though some of the vocalizations that marine mammals make are less than one second long, there is only a 1 in 24 chance that they would occur exactly when the ping was received, and when vocalizations are longer than one second, only parts of them are masked. Alternately, when the pulses are only several microseconds long, the majority of most animals' vocalizations would not be masked. Masking effects from MFAS/HFAS are expected to be minimal. If

masking or communication impairment were to occur briefly, it would be in the frequency range of MFAS, which overlaps with some marine mammal vocalizations, however, it would likely not mask the entirety of any particular vocalization or communication series because the pulse length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations.

PTS, Injury, or Mortality

The Navy's model estimated that the following numbers of individuals of the indicated species would be exposed to levels of MFAS/HFAS associated with the likelihood of resulting in PTS: bottlenose dolphin—47; blue whale—1; gray whale—1; Long-beaked common dolphin—1; short-beaked common dolphin—6; striped dolphin—1; and Pacific harbor seal—9. However, these estimates do not take into consideration either the mitigation measures or the likely avoidance behaviors of some of the animals exposed. NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels of active sonar necessary to induce injury (i.e., approaching to within approximately 10 m (10.9 yd) of the source) by moving away from or at least modifying their path to avoid a close approach. Additionally, in the unlikely event that an animal approaches the sonar vessel at a close distance, NMFS believes that the mitigation measures (i.e., shutdown/powerdown zones for MFAS/HFAS) further ensure that animals would not be exposed to injurious levels of sound. As discussed previously, the Navy utilizes both aerial (when available) and passive acoustic monitoring (during all ASW exercises) in addition to watchstanders on vessels to detect marine mammals for mitigation implementation and indicated that they are capable of effectively monitoring a 1000-meter (1093-yd) safety zone at night using night vision goggles, infrared cameras, and passive acoustic monitoring. When these two points are considered, NMFS does not believe that any marine mammals will incur PTS from exposure to MFAS/HFAS.

The Navy's model estimated that 34 total animals (dolphins and pinnipeds) would be exposed to explosive detonations at levels that could result in injury and that 4 dolphins and 7 pinnipeds would be exposed to levels that could result in death—however, those estimates do not consider mitigation measures. Because of the surveillance conducted prior to and during the exercises, the associated

exclusion zones (see table 3 and the Mitigation section), and the distance within which the animal would have to be from the explosive, NMFS does not think that any animals will be exposed to levels of sound or pressure from explosives that will result in injury or death.

As discussed previously, marine mammals could potentially respond to MFAS at a received level lower than the injury threshold in a manner that indirectly results in the animals stranding. The exact mechanisms of this potential response, behavioral or physiological, are not known. However, based on the number of occurrences where strandings have been definitively associated with military active sonar versus the number of hours of active sonar training that have been conducted, we suggest that the probability is small that this will occur. Additionally, an active sonar shutdown protocol for strandings involving live animals milling in the water minimizes the chances that these types of events turn into mortalities.

Though NMFS does not expect it to occur, because of the uncertainty surrounding the mechanisms that link exposure to MFAS to stranding (especially in beaked whales), NMFS is proposing to authorize the injury or mortality of 10 beaked whales over the course of the 5-yr regulations.

40 Years of Navy Training Exercises Using MFAS/HFAS in the SOCAL Range Complex

The Navy has been conducting MFAS/HFAS training exercises in the SOCAL Range Complex for over forty years. Although monitoring specifically in conjunction with training exercises to determine the effects of active sonar on marine mammals was not being conducted by the Navy prior to 2006 and the symptoms indicative of potential acoustic trauma were not as well recognized prior to the mid-nineties, people have been collecting stranding data in the SOCAL Range Complex for approximately 25 years. Though not all dead or injured animals are expected to end up on the shore (some may be eaten or float out to sea), one might expect that if marine mammals were being harmed by active sonar with any regularity, more evidence would have been detected over the 40-yr period.

Species-Specific Analysis

In the discussions below, the "acoustic analysis" refers to the Navy's analysis, which includes the use of several models and other applicable calculations as described in the

Estimates of Potential Marine Mammal Exposure section. The numbers predicted by the “acoustic analysis” are based on a uniform and stationary distribution of marine mammals and do not take into consideration the implementation of mitigation measures or potential avoidance behaviors of marine mammals, and therefore, are likely overestimates of potential exposures to the indicated thresholds (PTS, TTS, behavioral harassments). Consequently, NMFS has factored in the mitigation measures and avoidance to make both quantitative and qualitative adjustments to the take estimates predicted by the Navy’s “acoustic analysis”. The revised take estimates (and proposed take authorization) depict a more realistic scenario than those adopted directly from the Navy’s acoustic analysis.

Although NMFS is not required to identify the number of animals that will be taken specifically by TTS versus behavioral harassment (Level B Harassment takes include both), we have attempted to make more realistic estimates by quantitatively refining the Navy’s TTS estimates by modifying the estimate produced by the acoustic analysis by a specific amount if certain circumstances are present as described below:

For MFAS/HFAS, some animals are likely to avoid the source to some degree (which could decrease the number exposed to TTS levels). Adding to that, in the following circumstances (discussed in more detail in the individual sections below) the indicated multipliers were applied to the TTS estimates predicted by the acoustic analysis:

- When animals are highly visible (such as melon-headed whales, humpback whales), we assume that lookouts will see them in time to cease sonar operation before the animals are exposed to levels associated with TTS, which reach to about 140 m from the sonar source. In this case we estimate 0 animals will incur TTS.
- When animals are deep divers and very cryptic at the surface (such as beaked whales), though some may avoid the source, we assume that most will not be sighted, and therefore we estimated that 50–100 percent of the number predicted by the Navy’s acoustic analysis might actually incur TTS.
- When animals are more likely to be visually detected than beaked whales, but less likely than the highly visible species, we estimate that 0–100 percent of the number of these species (sperm whales, some pinnipeds) predicted by

the Navy’s acoustic analysis might actually incur TTS.

- Though dolphins are highly visible, because the mitigation includes a provision to allow bow-riding, not all TTS take of dolphins will necessarily be avoided. Therefore, we estimated that 0–50 percent of the number of dolphins predicted by the Navy’s acoustic analysis might actually incur TTS.

For explosives, all TTS will likely not be avoided for any species because for a couple of the larger explosives, the distance at which an animal could incur TTS is somewhat greater than the Navy’s exclusion zone for a couple of the exercise types (see Table 3). Adding to that, in the following circumstances (discussed in more detail in the individual sections below) the indicated multipliers were applied to the TTS estimates predicted by the acoustic analysis:

- When marine mammals are highly detectable, NMFS estimated that 0–50 percent of the number of those species predicted by the Navy’s acoustic analysis might actually incur TTS.
- When marine mammals are less than highly detectable, NMFS estimated that 50–100 percent of the number of those species predicted by the Navy’s acoustic analysis might actually incur TTS.

Humpback Whale

Acoustic analysis indicates that up to 15 exposures of humpback whales to sound levels likely to result in Level B harassment may occur from MFAS/HFAS and explosives. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Although 2 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS, NMFS believes it is unlikely that any humpback whales will incur TTS because of the distance within which they would have to approach the active sonar source (depending on conditions, within a range of 140 m for the most powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the high likelihood that Navy monitors would detect these animals (due to their large size, surface behavior, and pronounced blow) prior to an approach within this distance and implement active sonar powerdown or shutdown. Acoustic analysis estimates that no humpback

whales will be exposed to MFAS/HFAS sound levels likely to result in Level A harassment.

Modeling of the explosive sources predicts that no take of humpback whales will result from the detonation of underwater explosives.

Humpback whales in southern California are primarily from the Eastern North Pacific Stock. The current best estimate of population size for this stock is 1,391 (Caretta *et al.*, 2007). No areas of specific importance for reproduction or feeding for humpback whales have been identified in the SOCAL Range Complex.

Sei Whales and Bryde’s Whales

Both Sei whales and Bryde’s whales are considered rare in SOCAL (less than 3 sightings in last 30 years, only one confirmed sighting in California, respectively). Because of their very low density in the area, the Navy’s acoustic analysis indicates that no sei whales or Bryde’s whales will be exposed to sound levels or explosive detonations likely to result in take and the Navy has not requested authorization to take any individuals of these species.

Fin Whales

Acoustic analysis indicates that up to 167 exposures of fin whales to sound levels likely to result in Level B harassment may result from MFAS/HFAS and explosives. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to primarily be in the form of behavioral harassment as described in the Definition of Harassment: Level B Harassment section. Although 12 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS, NMFS believes it is unlikely that any fin whales will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 140 m for the most powerful source for TTS), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of fin whales because of their large size, mean group size (3), and pronounced blow.

Acoustic analysis also predicted that 1 TTS take of fin whales from explosives would occur. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would

likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to 1 TTS take of a fin whale might result from explosive detonations.

Acoustic analysis estimates that no fin whales will be exposed to MFAS/HFAS sound levels or explosives expected to result in injury or death. Further, NMFS believes that many marine mammals would avoid exposing themselves to the received levels necessary to induce injury (and avoid getting as close to the vessel as they would need to: within approximately 10 m (10.9 yd)) by moving away from or at least modifying their path to avoid a close approach. Also, NMFS believes that the mitigation measures would be effective at avoiding injurious exposures to animal that approached within the explosive safety zone, especially in the case of these large animals.

Fin whales in the Southern California Range Complex belong to the California/Oregon/Washington stock. The best population estimate for this stock is 2,099. No areas of specific importance for reproduction or feeding for fin whales have been identified in the SOCAL Range Complex.

Blue Whales

Acoustic analysis indicates that up to 609 exposures of blue whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment may occur. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be primarily in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Although 67 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure, NMFS believes it is unlikely that any blue whales will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 140 m for the most powerful source for TTS), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or

shutdown. Navy lookouts will likely detect a group of blue whales given their large size, average group size (2–3), and pronounced vertical blow. The acoustic analysis also predicted that 1 animal would be exposed to MFAS/HFAS sound levels that would result in Level A Harassment (PTS—injury). However, for the same reasons listed above for TTS (and because animals would need to approach within 10 m of the sonar dome), NMFS does not believe that any animals will incur PTS or be otherwise injured by MFAS/HFAS.

Acoustic analysis also predicted that 2 blue whales would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to 1 TTS take of a blue whale might result from explosive detonations. Acoustic analysis estimates that no blue whales will be exposed to explosive levels likely to result in PTS or mortality.

Blue whales in the Southern California Range Complex belong to the Eastern North Pacific stock. The best population estimate for this stock is 1,744 (Caretta *et al.*, 2007). No areas of specific importance for reproduction or feeding for blue whales have been identified in the SOCAL Range Complex.

Gray Whales

Acoustic analysis indicates that up to 5,460 exposures of gray whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment may occur. This estimate represents the total number of takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to primarily be in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Although 544 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure, NMFS believes it is unlikely that any gray whales will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 140 m for the most

powerful source for TTS, 10 m for injury), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of gray whales given their large size, pronounced blow and mean group size of about 3 animals. The acoustic analysis also predicted that 1 animal would be exposed to MFAS/HFAS sound levels that would result in Level A Harassment (PTS—injury). However, for the same reasons listed above for TTS (and because animals would need to approach within 10 m of the sonar dome), NMFS does not believe that any animals will incur PTS or be otherwise injured by MFAS/HFAS.

Acoustic analysis also predicted that 7 gray whales would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to 4 TTS take of a gray whale might result from explosive detonations. Acoustic analysis predicts that no gray whales will be exposed to explosive levels likely to result either in Level A harassment or mortality.

Gray whales in the Southern California Range Complex belong to the Eastern North Pacific stock, for which the best population estimate is 26,635 (Angliss and Outlaw, 2007). No areas of specific importance for reproduction or feeding for gray whales have been identified in the SOCAL Range Complex.

Minke Whales

Acoustic analysis indicates that up to 126 exposures of minke whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment may occur. This estimate represents the total number of Level B takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be in the form of behavioral disturbance as described in the Definition of Harassment: Level B

Harassment section. Although 16 of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure, NMFS believes it is unlikely that all 16 whales will incur TTS because of the distance within which they would have to approach the active sonar source (approximately 140 m for the most powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect some of these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. However, because of their cryptic behavior/profile at the surface, NMFS believes that some animals may approach undetected within the distance in which TTS would likely be incurred (although, they can be detected well using passive acoustic monitoring). Therefore, NMFS estimates that 0–16 Minke whales may incur TTS from exposure to MFAS/HFAS.

As indicated in Table 12, known minke whale vocalizations are largely below 1 kHz and would not likely overlap with MFAS/HFAS TTS, which would be in the range of 2–20 kHz. As noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

Acoustic analysis predicts that no minke whales will be exposed to MFAS/HFAS sound levels likely to result either in Level A harassment or mortality. Additionally, acoustic analysis predicts that no take of minke whales will result from exposure to explosive detonations. No areas of specific importance for reproduction or feeding for minke whales have been identified in the SOCAL Range Complex.

Minke whales in the Southern California Range Complex belong to the California/Oregon/Washington stock, for which the best population estimate is 823 (Barlow and Forney, 2007).

Sperm Whales

Acoustic analysis indicates that up to 148 exposures of sperm whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment may occur. This estimate represents the total number of Level B takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to primarily be in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Although 8 of the

modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure, NMFS believes it is unlikely that all eight whales will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 140 m for the most powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect some of these animals at the surface prior to an approach within this distance and implement active sonar powerdown or shutdown. However, because of their long, deep diving behavior (up to 2-hour dives), NMFS believes that some animals may approach undetected within the distance in which TTS would likely be incurred. Therefore, NMFS estimates that 0–8 sperm whales may incur some degree of TTS from exposure to MFAS/HFAS.

As indicated in Table 12, some (but not all) sperm whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS. No sperm whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury.

Acoustic analysis also predicted that one sperm whale would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect these species in most instances and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to one TTS take of a sperm whale might result from explosive detonations. Acoustic analysis predicts that no sperm whales will be exposed to explosive levels likely to result either in Level A harassment or mortality.

No areas of specific importance for reproduction or feeding for sperm whales have been identified in the SOCAL Range Complex. Sperm whales in the Southern California Range Complex belong to the California/Oregon/Washington stock, for which the

best population estimate is 1,233 (Caretta *et al.*, 2007).

Pygmy and Dwarf Sperm Whales

Acoustic analysis indicates that up to 159 exposures of pygmy sperm whales to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment may occur. This estimate represents the total number of Level B takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to primarily be in the form of behavioral disturbance as described in the Definition of Harassment: Level B Harassment section. Sixteen of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure. NMFS believes it is unlikely that all 16 whales will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 140 m for the most powerful source) and the fact that many animals will likely avoid active sonar sources to some degree. However, the likelihood that Navy monitors would detect most of these animals at the surface prior to an approach within this distance is low because of their small size, non-gregarious nature, and cryptic behavior and profile. Therefore, NMFS estimates that 8–16 pygmy sperm whales may incur some degree of TTS from exposure to MFAS/HFAS.

As indicated in Table 12, some *Kogia* spp. vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), but the limited information for *Kogia* sp. indicates that the majority of their clicks are at a much higher frequency and that their maximum hearing sensitivity is between 90 and 150 kHz. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS. No pygmy sperm whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury.

Acoustic analysis also predicted that one pygmy sperm whale would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would not always detect these species to implement the mitigation to avoid exposure. Additionally, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be

entirely avoided during those exercises, so NMFS estimates that one TTS take of a pygmy sperm whale would result from explosive detonations. Acoustic analysis predicts that no sperm whales will be exposed to explosive levels likely to result either in Level A harassment or mortality.

Dwarf sperm whales are considered rare in the SOCAL Range Complex and no information is available to estimate the population size of dwarf sperm whales off the U.S. West Coast (Caretta *et al.*, 2007). NMFS and the Navy do not anticipate take of this species occurring, but NMFS is proposing to authorize 20 Level B Harassment takes for this species annually to ensure MMPA compliance should the Navy unexpectedly encounter an individual of this species while operating active sonar.

No areas of specific importance for reproduction or feeding for pygmy or dwarf sperm whales have been identified in the SOCAL Range Complex. Pygmy sperm whales in the Southern California Range Complex belong to the California/Oregon/Washington stock, for which the most recent population estimate is 247 (Caretta *et al.*, 2007).

Beaked Whales

Due to the difficulty in differentiating Mesoplodon species from each other, the management unit (California/Oregon/Washington stock of Mesoplodont beaked whales) is defined to include all the mesoplodon populations (Blainville's, Hubb's, Perrin's, pygmy, and ginkgo-toothed beaked whales) and anticipated take of these 5 species is combined in Table 9. Acoustic analysis indicates that 13 Baird's beaked whales, 428 Cuvier's beaked whales, and 131 Mesoplodon species will likely be exposed to MFAS/HFAS or explosives at pressure or sound levels likely to result in Level B harassment. The analysis also further estimates that 97 unidentified beaked whales may be taken by Level B Harassment. These estimates represent the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year.

One (Baird's), 37 (Cuvier's), and 13 (Mesoplodon) of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure. NMFS believes it is unlikely that all 51 beaked whales will incur TTS because of the distance within which they would have to approach the active sonar source (approximately 140 m for the most powerful source) and the fact

that many animals will likely avoid active sonar sources to some degree. However, the likelihood that Navy monitors would detect most of these animals at the surface prior to an approach within this distance is low because of their non-gregarious nature, cryptic behavior and profile, and the fact that they often dive for up to an hour. Therefore, NMFS estimates that 1 Baird's, 19–37 Cuvier's, and 7–13 Mesoplodon beaked whales may incur some degree of TTS from exposure to MFAS/HFAS.

As indicated in Table 12, some beaked whale vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS. No beaked whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury.

Acoustic analysis also predicted that 3 Cuvier's and 1 Mesoplodon beaked whale would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would not likely always detect these species and implement the mitigation to avoid exposure. Additionally, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), therefore NMFS anticipates that TTS might not be entirely avoided during those exercises. NMFS estimates that up to 1 TTS take of a Mesoplodon species and up to 3 TTS takes of a Cuvier's beaked whale would result from explosive detonations. Acoustic analysis predicts that no beaked whales will be exposed to explosive levels likely to result either in Level A harassment or mortality.

No areas of specific importance for reproduction or feeding for beaked whales have been identified in the SOCAL Range Complex. The California/Oregon/Washington stock of Mesoplodon whales has estimated population of 1,777 (Barlow and Forney, 2007). The population size of the California/Oregon/Washington stock of Cuvier's beaked whale is estimated at 4,342 (Barlow and Forney, 2007). The population size of the California/Oregon/Washington stock of Baird's beaked whale is estimated at 1,005 (Barlow and Forney, 2007).

As discussed previously, scientific uncertainty exists regarding the

potential contributing causes of beaked whale strandings and the exact behavioral or physiological mechanisms that can potentially lead to the ultimate physical effects (stranding and/or death) that have been documented in a few cases. Although NMFS does not expect injury or mortality of any of these seven species to occur as a result of the MFAS/HFAS training exercises (see Mortality paragraph above), there remains the potential for the operation of MFAS to contribute to the mortality of beaked whales. Consequently, NMFS intends to authorize mortality and we consider the 10 potential mortalities from across the seven species potentially effected over the course of 5 years in our negligible impact determination (NMFS only intends to authorize a total of 10 beaked whale mortality takes, but since they could be of any of the species, we consider the effects of 10 mortalities of any of the seven species).

Social Pelagic Species (killer whales, short-finned pilot whales, false killer whales, pygmy killer whales, and melon-headed whales)

Acoustic analysis indicates that 7 killer whales and 45 short-finned pilot whales will be exposed to MFAS/HFAS or explosive detonations at sound or pressure levels likely to result in Level B harassment. This estimate represents the total number of Level B takes and not necessarily the number of individuals taken, as a single individual may be taken multiple times over the course of a year. These Level B takes are anticipated to be in the form of behavioral disturbance as described in the Definition of Harassment: Level B harassment section. Acoustic analysis predicts that neither of these species will be exposed to levels of MFAS/HFAS associated with PTS or injury.

Although 1 and 6 (killer whale and pilot whale, respectively) of the modeled Level B Harassment takes were predicted to be in the form of TTS from MFAS/HFAS exposure, NMFS believes it is unlikely that any killer whales or short-finned pilot whales will incur TTS because of the distance within which they would have to approach the active sonar source (approximately 140 m for the most powerful source for TTS), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of killer whales or short-finned pilot whales given their large

individual size and mean large group size (6.5 and 22.5, respectively).

Acoustic analysis predicts that neither of these species will be exposed to levels of sound or pressure from explosives that would be expected to result in any form of take. No areas of specific importance for reproduction or feeding for beaked whales have been identified in the SOCAL Range Complex.

The low density of killer whales in California consists primarily of individuals from the Offshore Eastern North Pacific stock and the Transient stock (as mentioned previously, individuals from the eastern north Pacific southern resident stock are not expected to be encountered in SOCAL). The combined population of these three stocks is estimated at 1,340 (Caretta *et al.*, 2007). Population size of the California/Oregon/Washington stock of the short-finned pilot whale is estimated at 350 (Barlow and Forney 2007).

Pygmy killer, false killer, and melon-headed whales are considered rare in the SOCAL Range Complex and no stocks have been designated for these species on the west coast of the U.S. NMFS and the Navy do not anticipate take of this species occurring, but NMFS is proposing to authorize 20 Level B Harassment takes for each of these species annually to ensure MMPA compliance should the Navy unexpectedly encounter an individual of this species while operating MFAS/HFAS.

Dolphins and Dall's Porpoise

The acoustic analysis predicts that the following numbers of Level B behavioral harassments of the associated species will occur: 1472 (bottlenose dolphins), 4583 (long-beaked common dolphin), 39404 (short-beaked common dolphin), 1503 (northern right whale dolphin), 1360 (Pacific white-sided dolphin), 1830 (striped dolphin), 622 (Dall's porpoise). This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year.

Although a portion (191 (bottlenose dolphins), 432 (long-beaked common dolphin), 3727 (short-beaked common dolphin), 166 (northern right whale dolphin), 189 (Pacific white-sided dolphin), 249 (striped dolphin), 88 (Dall's porpoise)) of the modeled Level

B Harassment takes for all of these species were predicted to be in the form of TTS, NMFS believes it is unlikely that all of the individuals estimated will incur TTS because of the distance within which they would have to approach the active sonar source (approximately 140 m for the most powerful source), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these animals prior to an approach within this distance and implement active sonar powerdown or shutdown. Navy lookouts will likely detect a group of dolphins given their relatively short dives, gregarious behavior, and large average group size. However, the Navy's proposed mitigation has a provision that allows the Navy to continue operation of MFAS if the animals are clearly bow-riding even after the Navy has initially maneuvered to try and avoid closing with the animals. Since these animals sometimes bow-ride and could potentially be exposed to levels associated with TTS as they approach or depart from bow-riding, we estimate that half or less of the number of animals modeled for MFAS/HFAS TTS would sustain TTS (see table 9). As mentioned above and indicated in Table 12, some dolphin vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFA/HFAS.

The acoustic analysis also predicted that 1 long-beaked common dolphin, 6 short-beaked common dolphins, and 1 striped dolphin would be exposed to MFAS/HFAS sound levels that would result in Level A Harassment (PTS—injury). However, for the same reasons listed above for TTS (and because animals would need to approach within 10 m of the sonar dome), NMFS does not believe that any animals will incur PTS or be otherwise injured by MFAS/HFAS. Of note, the directionality of the sonar dome is such that dolphins would not likely be exposed to injurious levels of sound while bow-riding.

Acoustic analysis also predicted that 10 bottlenose dolphins, 41 long-beaked common dolphins, 354 short-beaked

common dolphins, 12 northern right whale dolphins, 9 Pacific white-sided dolphins, 6 striped dolphins, and 2 Dall's porpoises would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), and therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to half of the estimated explosive detonation TTS takes of dolphins might occur.

Acoustic analysis also predicted that 1 long-beaked dolphin, 1 Risso's dolphin, and 12 short-beaked common dolphins might be exposed to sound or pressure from explosive detonations that would result in PTS or injury, and that 4 short-beaked common dolphins would be exposed to levels that would result in mortality. For the same reasons listed above (group size, dive and social behavior), NMFS anticipates that the Navy watchstanders would detect these species and implement the mitigation measures to avoid exposure. In the case of all explosive exercises, the exclusion zones are 2–12 times larger than the estimated distance at which an animal would be exposed to injurious sounds or pressure waves. Therefore, no takes by injury or death are anticipated or authorized.

No areas of specific importance for reproduction or feeding for dolphins have been identified in the SOCAL Range Complex. Table 13 shows the estimated abundance of the affected stocks of dolphins and Dall's porpoise.

Pantropical spotted, rough-toothed, and spinner dolphins are considered rare in the SOCAL Range Complex and no stocks have been designated for these species on the west coast of the U.S. NMFS and the Navy do not anticipate take of this species occurring, but NMFS is proposing to authorize 20 Level B Harassment takes for each of these species annually to ensure MMPA compliance should the Navy unexpectedly encounter an individual of this species while operating MFAS/HFAS.

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Species Name	Warm Season density/km ⁴	Cold Season density/km ²	Estimated Abundance
MYSTICETES			
Blue whale	0.0041222	0.0041222	1,744
Fin whale	0.0024267	0.0008008	2,099
Humpback whale	0.0001613	0.0000984	1,391
Sei whale	0.0000081	0.000005	56
Bryde's whale	0.0000081	0.0000081	12
Gray whale	0	0.051	26,635
Minke whale	0.0010313	0.0010313	823
ODONTOCETES			
Sperm whale	0.0014313	0.0008731	1,934
Baird's beaked whale	0.0001434	0.0001434	1,005
Bottlenose dolphin	0.0123205	0.0184808	323 onshore/2026 offshore
Cuvier's beaked whale	0.0036883	0.0036883	4,342
Dall's porpoise	0.0016877	0.0081008	85,955
Killer whale	0.0000812	0.0000812	1340 offshore/ 346 transient
Long-beaked common dolphin	0.0965747	0.0366984	21,902
Mesoplodonts	0.0011125	0.0011125	1,177
Northern right whale dolphin	0.0056284	0.0270163	11,097
Pacific white-sided dolphin	0.0160748	0.0160748	23,817
Pygmy sperm whale	0.0013785	0.0013785	247
Short-finned pilot whale	0.0003315	0.0003315	350
Risso's dolphin	0.0180045	0.0540134	11,910
Short-beaked common dolphin	0.8299606	0.315385	352,069
Striped dolphin	0.0175442	0.0107019	18,976
Ziphiid whales	0.0008214	0.0008214	
PINNIPEDS			
Guadalupe fur seal	0.007	0.007	7,408
Northern elephant seal	0.042	0.025	101,000
Harbor seal	0.19	0.19	34,233
California sea lion	0.605	0.87	237,000
Northern fur seal	0.027	0.027	9,424

Table 13. Estimated density and abundance of marine mammals (see Navy application for sources)

BILLING CODE 3510-22-C

Pinnipeds (Guadalupe fur seal, Northern fur seal, California sea lion, Northern elephant seal, and Pacific harbor seal).

The Navy's acoustic analysis predicts that the following numbers of Level B behavioral harassments of the associated species will occur: 1064 (Guadalupe fur seal), 1229 (Northern fur seal), 55443 (California sea lion), 955 (northern elephant seal), and 5625 (Pacific harbor seal). This estimate represents the total number of exposures and not necessarily the number of individuals exposed, as a single individual may be exposed multiple times over the course of a year.

A portion (190 Guadalupe fur seal, 3 Northern fur seal, 3 California sea lion, 5 northern elephant seal, and 4559 Pacific harbor seal) of the modeled

Level B Harassment takes for all of these species were predicted to be in the form of TTS. For Guadalupe fur seals, Northern fur seals, and California sea lions, for which the TTS threshold is 206 dB SEL, NMFS believes it is unlikely that any of these pinnipeds will incur TTS because of the distance within which they would have to approach the MFAS source (approximately 40 m for the most powerful source for), the fact that many animals will likely avoid active sonar sources to some degree, and the likelihood that Navy monitors would detect these pinnipeds (because of the relatively short duration of their dives and their tendency to rest near the surface) prior to an approach within this distance and implement active sonar powerdown or shutdown. Because

elephant seals typically dive for longer periods (20–30 minutes) and only spend about 10 percent of their time at the surface, some animals will likely not be detected by Navy monitors and will likely incur TTS. Also of note though, elephant seals make extensive foraging migrations to the North Pacific and Gulf of Alaska outside of SOCAL returning two times a year California haul-out sites for breeding and molting. Northern elephant seals would not be exposed during the times they are foraging outside of SOCAL (Stewart and DeLong 1995, Le Boeuf *et al.*, 2000, Crocker *et al.*, 2006, Bearzi *et al.*, 2008). NMFS estimates that less than half of the estimated elephant seal TTS takes may occur (0–3). Though harbor seals have generally short dive times, they are smaller (harder to see) and the TTS

threshold for this species is substantively lower (183 dB SEL), which means that they can be exposed to levels expected to result in TTS at a substantially larger distance from the source (approximately 1650 m). Therefore, though some TTS takes will likely be avoided through mitigation implementation, NMFS estimates that more than half of the estimated TTS takes will still actually occur (2280–4559). As mentioned above and indicated in Table 12, some pinniped vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz), which could potentially temporarily decrease an animal's sensitivity to the calls of conspecifics or returning echolocation signals. However, as noted previously, NMFS does not anticipate TTS of a long duration or severe degree to occur as a result of exposure to MFAS/HFAS.

The acoustic analysis also predicted that 9 Pacific harbor seals animal would be exposed to MFAS/HFAS sound levels that would result in Level A Harassment (PTS—injury). However, because of the distance within which they would have to approach the MFAS source (approximately 50 m for the most powerful source for) and the fact that animals will likely avoid active sonar sources to some degree, NMFS does not believe that any animals will incur PTS or be otherwise injured by MFAS/HFAS.

Acoustic analysis also predicted that 2 Guadalupe fur seals, 64 Northern fur seals, 510 California sea lions, 41 northern elephant seals, and 26 Pacific harbor seals would be exposed to sound or pressure from explosives at levels expected to result in TTS. For the same reasons listed above, NMFS anticipates that the Navy watchstanders would likely detect the majority of the individual Guadalupe fur seals, northern fur seals, and California sea lions and implement the mitigation measures to avoid exposure. However, the range to TTS for a few of the larger explosives is larger than the associated exclusion zones for BOMBEX, MISSILEX, or SINKEX (see Table 3), therefore NMFS anticipates that TTS might not be entirely avoided during those exercises, so NMFS estimates that up to half of the TTS takes predicted by the acoustic analysis might actually be incurred (0–1 Guadalupe fur seals, 0–32 northern fur seals, and 0–255 California sea lions). NMFS estimates that of all of the pinnipeds, fewer elephant seals and harbor seals would likely be detected, and therefore we estimate that a larger portion of predicted exposures of elephant seals and harbor seals might be

in the form of TTS (20–41 elephant seals, 13–26 harbor seals).

Acoustic analysis also predicted that 20 pinnipeds might be exposed to levels of sound or pressure from explosives that would result in PTS or other injury and that 7 pinnipeds mortalities would result from explosive detonations. NMFS anticipates that the Navy watchstanders would likely detect these species and implement the mitigation measures to avoid exposure. In the case of all explosive exercises, the exclusion zones are 2–12 times larger than the estimated distance at which an animal would be exposed to injurious sounds or pressure waves. Therefore, no takes by injury or death are anticipated or authorized. Table 13 shows the estimated abundance of the affected stocks of dolphins and Dall's porpoise.

Preliminary Determination

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat and dependent upon the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that the total taking from Navy training exercises utilizing MFAS/HFAS and underwater explosives in the SOCAL Range Complex will have a negligible impact on the affected species or stocks. NMFS has proposed regulations for these exercises that prescribe the means of affecting the least practicable adverse impact on marine mammals and their habitat and set forth requirements pertaining to the monitoring and reporting of that taking.

Subsistence Harvest of Marine Mammals

NMFS has preliminarily determined that the issuance of 5-year regulations and subsequent LOAs for Navy training exercises in the SOCAL Range Complex would not have an unmitigable adverse impact on the availability of the affected species or stocks for subsistence use, since there are no such uses in the specified area.

ESA

There are six marine mammal species and six sea turtle species that are listed as endangered under the ESA with confirmed or possible occurrence in the study area: humpback whale, sei whale, fin whale, blue whale, sperm whale, Guadalupe fur seal, loggerhead sea turtle, the green sea turtle, leatherback sea turtle, and the olive ridley sea turtle. The Navy has begun consultation with NMFS pursuant to section 7 of the ESA, and NMFS will also consult internally on the issuance of an LOA under section

101(a)(5)(A) of the MMPA for SOCAL activities. Consultation will be concluded prior to a determination on the issuance of the final rule and an LOA.

NEPA

NMFS has participated as a cooperating agency on the Navy's Draft Environmental Impact Statement (DEIS) for SOCAL, which was published on April 4, 2008. The Navy's DEIS is posted on NMFS' Web site: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. NMFS intends to adopt the Navy's Final EIS (FEIS), if adequate and appropriate. Currently, we believe that the adoption of the Navy's FEIS will allow NMFS to meet its responsibilities under NEPA for the issuance of an LOA for SOCAL. If the Navy's FEIS is deemed not to be adequate, NMFS would supplement the existing analysis to ensure that we comply with NEPA prior to the issuance of the final rule or LOA.

Classification

This action does not contain any collection of information requirements for purposes of the Paperwork Reduction Act.

The Office of Management and Budget has determined that this proposed rule is significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act, the Chief Counsel for Regulation of the Department of Commerce has certified to the Chief Counsel for Advocacy of the Small Business Administration that this rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The Regulatory Flexibility Act requires Federal agencies to prepare an analysis of a rule's impact on small entities whenever the agency is required to publish a notice of proposed rulemaking. However, a Federal agency may certify, pursuant to 5 U.S.C. section 605(b), that the action will not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that will be affected by this rulemaking, not a small governmental jurisdiction, small organization or small business, as defined by the Regulatory Flexibility Act (RFA). Any requirements imposed by a Letter of Authorization issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, will be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOAs to result in any impacts to small entities

pursuant to the RFA. Because this action, if adopted, would directly affect the Navy and not a small entity, NMFS concludes the action would not result in a significant economic impact on a substantial number of small entities.

Dated: September 25, 2008.

James Balsiger,

*Acting Assistant Administrator for Fisheries,
National Marine Fisheries Service.*

For reasons set forth in the preamble, 50 CFR part 216 is proposed to be amended as follows:

PART 216—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

1. The authority citation for part 216 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

2. Subpart X is added to part 216 to read as follows:

Subpart X—Taking and Importing Marine Mammals; U.S. Navy's Southern California Range Complex (SOCAL)

Sec.

216.270 Specified activity and specified geographical region.

216.271 Definitions.

216.272 Permissible methods of taking.

216.273 Prohibitions.

216.274 Mitigation.

216.275 Requirements for monitoring and reporting.

216.276 Applications for Letters of Authorization.

216.277 Letters of Authorization.

216.278 Renewal of Letters of Authorization and adaptive management.

216.279 Modifications to Letters of Authorization.

Table 1 to Subpart X—"Summary of monitoring effort proposed in draft Monitoring Plan for SOCAL"

Subpart X—Taking and Importing Marine Mammals; U.S. Navy's Southern California Range Complex (SOCAL)

§ 216.270 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the U.S. Navy for the taking of marine mammals that occurs in the area outlined in paragraph (b) of this section and that occur incidental to the activities described in paragraph (c) of this section.

(b) The taking of marine mammals by the Navy is only authorized if it occurs within the SOCAL Range Complex (as depicted in Figure ES-1 in the Navy's Draft Environmental Impact Statement for SOCAL), which extends southwest from southern California in an approximately 700 by 200 nm rectangle with the seaward corners at 27°30'00" N.

lat.; 127°10'04" W. long. and 24°00'01" N. lat.; 125°00'03" W. long.

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities within the designated amounts of use:

(1) The use of the following mid-frequency active sonar (MFAS) sources, high frequency active sonar (HFAS) sources for U.S. Navy anti-submarine warfare (ASW), mine warfare (MIW) training, maintenance, or research, development, testing, and evaluation (RDT&E) in the amounts indicated below (± 10 percent):

(i) AN/SQS-53 (hull-mounted active sonar)—up to 9,885 hours over the course of 5 years (an average of 1,977 hours per year).

(ii) AN/SQS-56 (hull-mounted active sonar)—up to 2,470 hours over the course of 5 years (an average of 494 hours per year).

(iii) AN/BQQ-10 (submarine active sonar)—up to 4,075 hours over the course of 5 years (an average of 815 hours per year) (an average of 2 pings per hour during training events, 60 pings per hour for maintenance).

(iv) AN/AQS-22 or 13 (active helicopter dipping sonar)—up to 13,595 dips over the course of 5 years (an average of 2,719 dips per year—10 pings per dip).

(v) SSQ-62 (Directional Command Activated Sonobuoy System (DICASS) sonobuoys)—up to 21,275 sonobuoys over the course of 5 years (an average of 4,255 sonobuoys per year).

(vi) MK-48 (heavyweight torpedoes)—up to 435 torpedoes over the course of 5 years (an average of 87 torpedoes per year).

(vii) AN/BQQ-15 (submarine navigational sonar)—up to 610 hours over the course of 5 years (an average of 122 hours per year).

(viii) MK-46 (lightweight torpedoes)—up to 420 torpedoes over the course of 5 years (an average of 84 torpedoes per year).

(ix) AN/SLQ-25A NIXIE—up to 1,135 hours over the course of 5 years (an average of 227 hours per year).

(2) The detonation of the underwater explosives indicated in this paragraph (c)(2)(i) conducted as part of the training exercises indicated in this paragraph (c)(2)(ii):

(i) Underwater Explosives:

(A) 5"; Naval Gunfire (9.5 lbs).

(B) 76 mm rounds (1.6 lbs).

(C) Maverick (78.5 lbs).

(D) Harpoon (448 lbs).

(E) MK-82 (238 lbs).

(F) MK-83 (574 lbs).

(G) MK-84 (945 lbs).

(H) MK-48 (851 lbs).

(I) Demolition Charges (20 lbs).

(J) AN/SSQ-110A (IEER explosive sonobuoy—5 lbs).

(ii) Training Events:

(A) Surface-to-surface Gunnery Exercises (S-S GUNEX)—up to 2,010 exercises over the course of 5 years (an average of 402 per year).

(B) Air-to-surface Missile Exercises (A-S MISSILEX)—up to 250 exercises over the course of 5 years (an average of 50 per year).

(C) Bombing Exercises (BOMBEX)—up to 200 exercises over the course of 5 years (an average of 40 per year).

(D) Sinking Exercises (SINKEX)—up to 10 exercises over the course of 5 years (an average of 2 per year).

(E) Extended Echo Ranging and Improved Extended Echo Ranging (EER/IEER) Systems—up to 15 exercises over the course of 5 years (an average of 3 per year).

§ 216.271 Definitions.

(a) The following definitions are utilized in these regulations:

(1) *Uncommon Stranding Event (USE)*—A stranding event that takes place during a major training exercise (MTE) and involves any one of the following:

(i) Two or more individuals of any cetacean species (not including mother/calf pairs, unless of species of concern listed in § 216.271(b)(1)(ii) found dead or live on shore within a two-day period and occurring within 30 miles of one another.

(ii) A single individual or mother/calf pair of any of the following marine mammals of concern: Beaked whale of any species, dwarf or pygmy sperm whales, short-finned pilot whales, humpback whales, sperm whales, blue whales, fin whales, or sei whales.

(iii) A group of 2 or more cetaceans of any species exhibiting indicators of distress as defined in § 216.271(b)(3).

(2) *Shutdown*—The cessation of MFAS/HFAS operation or detonation of explosives within 14 nm of any live, in the water, animal involved in a USE.

(3) *Exhibiting Indicators of Distress*—Animals exhibiting an uncommon combination of behavioral and physiological indicators typically associated with distressed or stranded animals. This situation would be identified by a qualified individual and typically includes, but is not limited to, some combination of the following characteristics:

(i) Marine mammals continually circling or moving haphazardly in a tightly packed group—with or without a member occasionally breaking away and swimming towards the beach.

(ii) Abnormal respirations including increased or decreased rate or volume of breathing, abnormal content or odor.

(iii) Presence of an individual or group of a species that has not historically been seen in a particular habitat, for example a pelagic species in a shallow bay when historic records indicate that it is a rare event.

(iv) Abnormal behavior for that species, such as abnormal surfacing or swimming pattern, listing, and abnormal appearance.

(4) *Major Training Exercise*—MTEs, within the context of the SOCAL Stranding Plan, include:

(i) Composite Training Unit Exercise (COMPTUEX)—3–4 events annually, 21 days per entire event.

(ii) Joint Task Force Exercise (JTTFEX)—3–4 events annually, 10 days per entire event.

(iii) Ship Anti-submarine warfare (ASW) Readiness and Evaluation Measuring (SHAREM)—1 event annually, less than a week long.

(iv) Sustainment Exercise—2 events annually, shorter than COMPTUEX.

(v) Integrated ASW Course (IAC2)—4 events annually, 2 12-hour exercises over 2 days.

(b) [Reserved]

§ 216.272 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 216.277, the Holder of the Letter of Authorization (hereinafter “Navy”) may incidentally, but not intentionally, take marine mammals within the area described in § 216.270(b), provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the appropriate Letter of Authorization.

(b) The activities identified in § 216.270(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 216.270(c) is limited to the following species, by the indicated method of take and the indicated number of times (estimated based on the authorized amounts of sound source operation):

(1) Level B Harassment (+/– 10 percent of the take estimate indicated below):

(i) Mysticetes:

(A) Humpback whale (*Megaptera novaeangliae*)—15.

(B) Fin whale (*Balaenoptera physalus*)—167.

(C) Blue whale (*Balaenoptera musculus*)—609.

(D) Minke whale (*Balaenoptera acutorostrata*)—126.

(E) Gray whale (*Eschrichtius robustus*)—5460.

(ii) Odontocetes:

(A) Sperm whales (*Physeter macrocephalus*)—148.

(B) Pygmy sperm whales (*Kogia breviceps*)—159.

(C) Dwarf sperm whale (*Kogia sima*)—20.

(D) Mesoplodont beaked whales (Blainville’s, Hubb’s, Perrin’s, pygmy, and ginkgo-toothed) (*Mesoplodon densirostris*, *M. carlhubbsi*, *M. perrini*, *M. peruvianus*, *M. ginkgodens*)—131.

(E) Cuvier’s beaked whales (*Ziphius cavirostris*)—428.

(F) Baird’s beaked whales (*Berardius bairdii*)—13.

(G) Unidentified beaked whales—97.

(H) Rough-toothed dolphin (*Steno bredanensis*)—20.

(I) Bottlenose dolphin (*Tursiops truncatus*)—1,509.

(J) Pan-tropical spotted dolphin (*Stenella attenuata*)—20.

(K) Spinner dolphin (*Stenella longirostris*)—20.

(L) Striped dolphin (*Stenella coeruleoalba*)—1,830.

(M) Long-beaked common dolphin (*Delphinus capensis*)—4,622.

(N) Risso’s dolphin (*Grampus griseus*)—3,592.

(O) Northern right whale dolphin (*Lissodelphis borealis*)—1,540.

(P) Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)—1,397.

(Q) Short-beaked common dolphin (*Delphinus delphis*)—39,441.

(R) Melon-headed whale (*Peponocephala electra*)—20.

(S) Pygmy killer whale (*Feresa attenuata*)—20.

(T) False killer whale (*Pseudorca crassidens*)—20.

(U) Killer whale (*Orcinus orca*)—7.

(V) Short-finned pilot whale (*Globicephala macrorhynchus*)—45.

(W) Dall’s porpoise (*Phocoenoides dalli*)—622.

(ii) Pinnipeds:

(A) Northern elephant seal (*Mirounga angustirostris*)—955.

(B) Pacific harbor seal (*Phoca vitulina*)—5,672.

(C) California sea lion (*Zalophus californianus*)—55,502.

(D) Northern fur seal (*Callorhinus ursinus*)—1,229.

(E) Guadalupe fur seal (*Arctocephalus townsendi*)—1,064.

(2) Level A Harassment and/or mortality of no more than 10 beaked whales (total), of any of the species listed in § 216.272(c)(1)(ii)(D–F) over the course of the 5-year regulations.

§ 216.273 Prohibitions.

No person in connection with the activities described in § 216.270 may:

(a) Take any marine mammal not specified in § 216.272(c);

(b) Take any marine mammal specified in § 216.272(c) other than by incidental take as specified in § 216.272(c)(1) and (c)(2);

(c) Take a marine mammal specified in § 216.272(c) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of these regulations or a Letter of Authorization issued under §§ 216.106 and 216.277.

§ 216.274 Mitigation.

(a) The activities identified in § 216.270(c) must be conducted in a manner that minimizes, to the greatest extent practicable, adverse impacts on marine mammals and their habitats.

(b) When conducting training, maintenance, or RDT&E activities and utilizing the sound sources or explosives identified in § 216.270(c), the mitigation measures contained in the Letter of Authorization issued under §§ 216.106 and 216.277 must be implemented. These mitigation measures include, but are not limited to:

(1) Navy’s General Maritime Measures for All Training at Sea:

(i) Personnel Training (for all Training Types):

(A) All commanding officers (COs), executive officers (XOs), lookouts, Officers of the Deck (OODs), junior OODs (JOODs), maritime patrol aircraft aircrews, and Anti-submarine Warfare (ASW)/Mine Warfare (MIW) helicopter crews shall complete the NMFS-approved Marine Species Awareness Training (MSAT) by viewing the U.S. Navy MSAT digital versatile disk (DVD). All bridge lookouts shall complete both parts one and two of the MSAT; part two is optional for other personnel.

(B) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Education and Training Command [NAVEDTRA] 12968–D).

(C) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced lookout. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard Program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). Personnel being trained as lookouts can be counted among required lookouts as long as supervisors monitor their progress and performance.

(D) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if marine species are spotted.

(ii) Operating Procedures and Collision Avoidance:

(A) Prior to major exercises, a Letter of Instruction, Mitigation Measures Message or Environmental Annex to the Operational Order shall be issued to further disseminate the personnel training requirement and general marine species protective measures.

(B) COs shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(C) While underway, surface vessels shall have at least two lookouts with binoculars; surfaced submarines shall have at least one lookout with binoculars. Lookouts already posted for safety of navigation and man-overboard precautions may be used to fill this requirement. As part of their regular duties, lookouts will watch for and report to the OOD the presence of marine mammals.

(D) On surface vessels equipped with a multi-function active sensor, pedestal mounted "Big Eye" (20x10) binoculars shall be properly installed and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(E) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(F) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook. (NAVEDTRA 12968-D).

(G) While in transit, naval vessels shall be alert at all times, use extreme caution, and proceed at a "safe speed" so that the vessel can take proper and effective action to avoid a collision with any marine animal and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

(H) When marine mammals have been sighted in the area, Navy vessels shall increase vigilance and take reasonable and practicable actions to avoid collisions and activities that might result in close interaction of naval assets and marine mammals. Actions may include changing speed and/or direction and are dictated by environmental and other conditions (e.g., safety, weather).

(I) Floating weeds and kelp, algal mats, clusters of seabirds, and jellyfish

are good indicators of marine mammals. Therefore, where these circumstances are present, the Navy shall exercise increased vigilance in watching for marine mammals.

(J) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine mammals as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties. Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate when it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

(K) All vessels shall maintain logs and records documenting training operations should they be required for event reconstruction purposes. Logs and records will be kept for a period of 30 days following completion of a major training exercise.

(2) Navy's Measures for MFAS Operations.

(i) Personnel Training (for MFAS Operations):

(A) All lookouts onboard platforms involved in ASW training events shall review the NMFS-approved Marine Species Awareness Training material prior to use of mid-frequency active sonar.

(B) All COs, XO's, and officers standing watch on the bridge shall have reviewed the Marine Species Awareness Training material prior to a training event employing the use of mid-frequency active sonar.

(C) Navy lookouts shall undertake extensive training in order to qualify as a watchstander in accordance with the Lookout Training Handbook (Naval Educational Training [NAVEDTRA], 12968-D).

(D) Lookout training shall include on-the-job instruction under the supervision of a qualified, experienced watchstander. Following successful completion of this supervised training period, lookouts shall complete the Personal Qualification Standard program, certifying that they have demonstrated the necessary skills (such as detection and reporting of partially submerged objects). This does not forbid personnel being trained as lookouts from being counted as those listed in previous measures so long as supervisors monitor their progress and performance.

(E) Lookouts shall be trained in the most effective means to ensure quick and effective communication within the

command structure in order to facilitate implementation of mitigation measures if marine species are spotted.

(ii) Lookout and Watchstander Responsibilities:

(A) On the bridge of surface ships, there shall always be at least three people on watch whose duties include observing the water surface around the vessel.

(B) All surface ships participating in ASW training events shall, in addition to the three personnel on watch noted previously, have at all times during the exercise at least two additional personnel on watch as marine mammal lookouts.

(C) Personnel on lookout and officers on watch on the bridge shall have at least one set of binoculars available for each person to aid in the detection of marine mammals.

(D) On surface vessels equipped with mid-frequency active sonar, pedestal mounted "Big Eye" (20x110) binoculars shall be present and in good working order to assist in the detection of marine mammals in the vicinity of the vessel.

(E) Personnel on lookout shall employ visual search procedures employing a scanning methodology in accordance with the Lookout Training Handbook (NAVEDTRA 12968-D).

(F) After sunset and prior to sunrise, lookouts shall employ Night Lookouts Techniques in accordance with the Lookout Training Handbook.

(G) Personnel on lookout shall be responsible for reporting all objects or anomalies sighted in the water (regardless of the distance from the vessel) to the Officer of the Deck, since any object or disturbance (e.g., trash, periscope, surface disturbance, discoloration) in the water may be indicative of a threat to the vessel and its crew or indicative of a marine species that may need to be avoided as warranted.

(iii) Operating Procedures:

(A) A Letter of Instruction, Mitigation Measures Message, or Environmental Annex to the Operational Order shall be issued prior to the exercise to further disseminate the personnel training requirement and general marine mammal mitigation measures.

(B) COs shall make use of marine species detection cues and information to limit interaction with marine species to the maximum extent possible consistent with safety of the ship.

(C) All personnel engaged in passive acoustic sonar operation (including aircraft, surface ships, or submarines) shall monitor for marine mammal vocalizations and report the detection of any marine mammal to the appropriate

watch station for dissemination and appropriate action.

(D) During mid-frequency active sonar operations, personnel shall utilize all available sensor and optical systems (such as night vision goggles) to aid in the detection of marine mammals.

(E) Navy aircraft participating in exercises at sea shall conduct and maintain, when operationally feasible and safe, surveillance for marine species of concern as long as it does not violate safety constraints or interfere with the accomplishment of primary operational duties.

(F) Aircraft with deployed sonobuoys shall use only the passive capability of sonobuoys when marine mammals are detected within 200 yds (183 m) of the sonobuoy.

(G) Marine mammal detections shall be immediately reported to assigned Aircraft Control Unit for further dissemination to ships in the vicinity of the marine species as appropriate where it is reasonable to conclude that the course of the ship will likely result in a closing of the distance to the detected marine mammal.

(H) Safety Zones—When marine mammals are detected by any means (aircraft, shipboard lookout, or acoustically) within or closing to inside 1,000 yds (914 m) of the sonar dome (the bow), the ship or submarine shall limit active transmission levels to at least 6 decibels (dB) below normal operating levels.

(I) Ships and submarines shall continue to limit maximum transmission levels by this 6-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(2) Should a marine mammal be detected within or closing to inside 500 yds (457 m) of the sonar dome, active sonar transmissions shall be limited to at least 10-dB below the equipment's normal operating level. Ships and submarines shall continue to limit maximum ping levels by this 10-dB factor until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(3) Should the marine mammal be detected within or closing to inside 200 yds (183 m) of the sonar dome, active sonar transmissions shall cease. Sonar shall not resume until the animal has been seen to leave the area, has not been detected for 30 minutes, or the vessel has transited more than 2,000 yds (1829 m) beyond the location of the last detection.

(4) Special conditions applicable for dolphins and porpoises only: If, after conducting an initial maneuver to avoid close quarters with dolphins or porpoises, the OOD concludes that dolphins or porpoises are deliberately closing to ride the vessel's bow wave, no further mitigation actions are necessary while the dolphins or porpoises continue to exhibit bow wave riding behavior.

(5) If the need for power-down should arise as detailed in "Safety Zones" above, the Navy shall follow the requirements as though they were operating at 235 dB—the normal operating level (i.e., the first power-down will be to 229 dB, regardless of at what level above 235 dB active sonar was being operated).

(I) Prior to startup or restart of active sonar, operators will check that the Safety Zone radius around the sound source is clear of marine mammals.

(J) Active sonar levels (generally)—Navy shall operate active sonar at the lowest practicable level, not to exceed 235 dB, except as required to meet tactical training objectives.

(K) Helicopters shall observe/survey the vicinity of an ASW training event for 10 minutes before the first deployment of active (dipping) sonar in the water.

(L) Helicopters shall not dip their active sonar within 200 yds (183 m) of a marine mammal and shall cease pinging if a marine mammal closes within 200 yds (183 m) after pinging has begun.

(M) Submarine sonar operators shall review detection indicators of close- aboard marine mammals prior to the commencement of ASW training events involving active mid-frequency sonar.

(3) Navy's Measures for Underwater Detonations

(i) Surface-to-Surface Gunnery (5-inch, 76 mm, 57 mm, 20 mm, 25 mm and 30 mm explosive rounds)

(A) Lookouts shall visually survey for floating weeds and kelp. Intended impact shall not be within 600 yds (585 m) of known or observed floating weeds and kelp, and algal mats.

(B) For exercises using targets towed by a vessel or aircraft, target-towing vessels/aircraft shall maintain a trained lookout for marine mammals. If a marine mammal is sighted in the vicinity, the tow aircraft/vessel shall immediately notify the firing vessel, which shall suspend the exercise until the area is clear.

(C) A 600-yard radius buffer zone shall be established around the intended target.

(D) From the intended firing position, trained lookouts shall survey the buffer

zone for marine mammals prior to commencement and during the exercise as long as practicable.

(E) The exercise shall be conducted only when the buffer zone is visible and marine mammals are not detected within it.

(ii) Surface-to-Surface Gunnery (non-explosive rounds)

(A) Lookouts shall visually survey for floating weeds and kelp, and algal mats. Intended impact will not be within 200 yds (183 m) of known or observed floating weeds and kelp, and algal mats.

(B) A 200-yd (183 m) radius buffer zone shall be established around the intended target.

(C) From the intended firing position, trained lookouts shall survey the buffer zone for marine mammals prior to commencement and during the exercise as long as practicable.

(D) If applicable, target towing vessels shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow vessel shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(E) The exercise shall be conducted only when the buffer zone is visible and marine mammals are not detected within the target area and the buffer zone.

(iii) Surface-to-Air Gunnery (explosive and non-explosive rounds)

(A) Vessels shall orient the geometry of gunnery exercises in order to prevent debris from falling in the area of sighted marine mammals.

(B) Vessels will expedite the recovery of any parachute deploying aerial targets to reduce the potential for entanglement of marine mammals.

(C) Target towing aircraft shall maintain a lookout. If a marine mammal is sighted in the vicinity of the exercise, the tow aircraft shall immediately notify the firing vessel in order to secure gunnery firing until the area is clear.

(iv) Air-to-Surface Gunnery (explosive and non-explosive rounds)

(A) If surface vessels are involved, lookouts will visually survey for floating kelp in the target area. Impact shall not occur within 200 yds (183 m) of known or observed floating weeds and kelp or algal mats.

(B) A 200 yd (183 m) radius buffer zone shall be established around the intended target.

(C) If surface vessels are involved, lookout(s) shall visually survey the buffer zone for marine mammals prior to and during the exercise.

(D) Aerial surveillance of the buffer zone for marine mammals shall be conducted prior to commencement of the exercise. Aerial surveillance altitude

of 500 feet to 1,500 feet (ft) (152—456 m) is optimum. Aircraft crew/pilot shall maintain visual watch during exercises. Release of ordnance through cloud cover is prohibited: Aircraft must be able to actually see ordnance impact areas.

(E) The exercise shall be conducted only if marine mammals are not visible within the buffer zone.

(v) Small Arms Training (grenades, explosive and non-explosive rounds)—Lookouts will visually survey for floating weeds or kelp, algal mats, and marine mammals. Weapons shall not be fired in the direction of known or observed floating weeds or kelp, algal mats, or marine mammals.

(vi) Air-to-Surface At-sea Bombing Exercises (explosive and non-explosive):

(A) If surface vessels are involved, trained lookouts shall survey for floating kelp and marine mammals. Ordnance shall not be targeted to impact within 1,000 yds (914 m) of known or observed floating kelp or marine mammals.

(B) A 1,000 yd (914 m) radius buffer zone shall be established around the intended target.

(C) Aircraft shall visually survey the target and buffer zone for marine mammals prior to and during the exercise. The survey of the impact area shall be made by flying at 1,500 ft (152 m) or lower, if safe to do so, and at the slowest safe speed. Release of ordnance through cloud cover is prohibited: Aircraft must be able to actually see ordnance impact areas. Survey aircraft should employ most effective search tactics and capabilities.

(D) The exercise will be conducted only if marine mammals are not visible within the buffer zone.

(vii) Air-to-Surface Missile Exercises (explosive and non-explosive):

(A) Ordnance shall not be targeted to impact within 1,800 yds (1646 m) of known or observed floating kelp.

(B) Aircraft shall visually survey the target area for marine mammals. Visual inspection of the target area shall be made by flying at 1,500 (457 m) feet or lower, if safe to do so, and at slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas. Explosive ordnance shall not be targeted to impact within 1,800 yds (1646 m) of sighted marine mammals.

(viii) Demolitions, Mine Warfare, and Mine Countermeasures (up to a 20-lb charge):

(A) Exclusion Zones—All Mine Warfare and Mine Countermeasures Operations involving the use of explosive charges must include exclusion zones for marine mammals to prevent physical and/or acoustic effects

to those species. These exclusion zones shall extend in a 700-yard arc radius around the detonation site.

(B) Pre-Exercise Surveys—For Demolition and Ship Mine Countermeasures Operations, pre-exercise survey shall be conducted within 30 minutes prior to the commencement of the scheduled explosive event. The survey may be conducted from the surface, by divers, and/or from the air, and personnel shall be alert to the presence of any marine mammal. Should such an animal be present within the survey area, the exercise shall be paused until the animal voluntarily leaves the area. The Navy shall suspend detonation exercises and ensure the area is clear for a full 30 minutes prior to detonation. Personnel shall record any marine mammal observations during the exercise.

(C) Post-Exercise Surveys—Surveys within the same radius shall also be conducted within 30 minutes after the completion of the explosive event.

(D) Reporting—If there is evidence that a marine mammal may have been stranded, injured or killed by the action, Navy training activities shall be immediately suspended and the situation immediately reported by the participating unit to the Officer in Charge of the Exercise (OCE), who will follow Navy procedures for reporting the incident to Commander, Pacific Fleet, Commander, Navy Region Southwest, Environmental Director, and the chain-of-command. The situation shall also be reported to NMFS (see Stranding Plan for details).

(ix) Mining Operations—initial target points shall be briefly surveyed prior to inert ordnance (no live ordnance used) release from an aircraft to ensure the intended drop area is clear of marine mammals. To the extent feasible, the Navy shall retrieve inert mine shapes dropped during Mining Operations.

(x) Sink Exercise:

(A) All weapons firing shall be conducted during the period 1 hour after official sunrise to 30 minutes before official sunset.

(B) Prior to conducting the exercise, remotely sensed sea surface temperature maps shall be reviewed. SINKEX shall not be conducted within areas where strong temperature discontinuities are present, thereby indicating the existence of oceanographic fronts. These areas shall be avoided because concentrations of some listed species, or their prey, are known to be associated with these oceanographic features.

(C) An exclusion zone with a radius of 1.0 nm shall be established around each target. An additional buffer of 0.5 nm shall be added to account for errors,

target drift, and animal movements. Additionally, a safety zone, which extends from the exclusion zone at 1.0 nm out an additional 0.5 nm, shall be surveyed. Together, the zones extend out 2 nm from the target.

(D) A series of surveillance overflights shall be conducted within the exclusion and the safety zones, prior to and during the exercise, when feasible. Survey protocol shall be as follows:

(1) Overflights within the exclusion zone shall be conducted in a manner that optimizes the surface area of the water observed. This may be accomplished through the use of the Navy's Search and Rescue Tactical Aid, which provides the best search altitude, ground speed, and track spacing for the discovery of small, possibly dark objects in the water based on the environmental conditions of the day. These environmental conditions include the angle of sun inclination, amount of daylight, cloud cover, visibility, and sea state.

(2) All visual surveillance activities shall be conducted by Navy personnel trained in visual surveillance. At least one member of the mitigation team would have completed the Navy's marine mammal training program for lookouts.

(3) In addition to the overflights, the exclusion zone shall be monitored by passive acoustic means, when assets are available. This passive acoustic monitoring would be maintained throughout the exercise. Potential assets include sonobuoys, which can be utilized to detect any vocalizing marine mammals (particularly sperm whales) in the vicinity of the exercise. The sonobuoys shall be re-seeded as necessary throughout the exercise. Additionally, passive sonar onboard submarines may be utilized to detect any vocalizing marine mammals in the area. The OCE would be informed of any aural detection of marine mammals and would include this information in the determination of when it is safe to commence the exercise.

(4) On each day of the exercise, aerial surveillance of the exclusion and safety zones shall commence 2 hours prior to the first firing.

(5) The results of all visual, aerial, and acoustic searches shall be reported immediately to the OCE. No weapons launches or firing may commence until the OCE declares the safety and exclusion zones free of marine mammals.

(6) If a protected species observed within the exclusion zone is diving, firing shall be delayed until the animal is re-sighted outside the exclusion zone, or 30 minutes have elapsed. After 30

minutes, if the animal has not been re-sighted it would be assumed to have left the exclusion zone.

(7) During breaks in the exercise of 30 minutes or more, the exclusion zone shall again be surveyed for any protected species. If marine mammals are sighted within the exclusion zone, the OCE shall be notified, and the procedure described above would be followed.

(8) Upon sinking of the vessel, a final surveillance of the exclusion zone shall be monitored for 2 hours, or until sunset, to verify that no marine mammals were harmed.

(E) Aerial surveillance shall be conducted using helicopters or other aircraft based on necessity and availability. The Navy has several types of aircraft capable of performing this task; however, not all types are available for every exercise. For each exercise, the available asset best suited for identifying objects on and near the surface of the ocean would be used. These aircraft would be capable of flying at the slow safe speeds necessary to enable viewing of marine vertebrates with unobstructed, or minimally obstructed, downward and outward visibility. The exclusion and safety zone surveys may be cancelled in the event that a mechanical problem, emergency search and rescue, or other similar and unexpected event preempts the use of one of the aircraft onsite for the exercise.

(F) Every attempt would be made to conduct the exercise in sea states that are ideal for marine mammal sighting, Beaufort Sea State 3 or less. In the event of a 4 or above, survey efforts shall be increased within the zones. This shall be accomplished through the use of an additional aircraft, if available, and conducting tight search patterns.

(G) The exercise shall not be conducted unless the exclusion zone could be adequately monitored visually.

(H) In the event that any marine mammals are observed to be harmed in the area, a detailed description of the animal shall be taken, the location noted, and if possible, photos taken. This information shall be provided to NMFS via the Navy's regional environmental coordinator for purposes of identification (see the Stranding Plan for detail).

(I) An after action report detailing the exercise's time line, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of survey efforts for each event shall be submitted to NMFS.

(xi) Extended Echo Ranging/Improved Extended Echo Ranging (EER/IEER):

(A) Crews shall conduct visual reconnaissance of the drop area prior to laying their intended sonobuoy pattern. This search shall be conducted at an altitude below 457 m (500 yd) at a slow speed, if operationally feasible and weather conditions permit. In dual aircraft operations, crews are allowed to conduct coordinated area clearances.

(B) Crews shall conduct a minimum of 30 minutes of visual and aural monitoring of the search area prior to commanding the first post detonation. This 30-minute observation period may include pattern deployment time.

(C) For any part of the briefed pattern where a post (source/receiver sonobuoy pair) will be deployed within 914 m (1,000 yd) of observed marine mammal activity, the Navy shall deploy the receiver ONLY and monitor while conducting a visual search. When marine mammals are no longer detected within 914 m (1,000 yd) of the intended post position, the Navy shall co-locate the explosive source sonobuoy (AN/SSQ-110A) (source) with the receiver.

(D) When able, Navy crews shall conduct continuous visual and aural monitoring of marine mammal activity. This is to include monitoring of own-aircraft sensors from first sensor placement to checking off station and out of RF range of these sensors.

(E) Aural Detection—If the presence of marine mammals is detected aurally, then that shall cue the Navy aircrew to increase the diligence of their visual surveillance. Subsequently, if no marine mammals are visually detected, then the crew may continue multi-static active search.

(F) Visual Detection—If marine mammals are visually detected within 914 m (1,000 yd) of the explosive source sonobuoy (AN/SSQ-110A) intended for use, then that payload shall not be detonated. Aircrews may utilize this post once the marine mammals have not been re-sighted for 30 minutes, or are observed to have moved outside the 914 m (1,000 yd) safety buffer. Aircrews may shift their multi-static active search to another post, where marine mammals are outside the 914 m (1,000 yd) safety buffer.

(G) Aircrews shall make every attempt to manually detonate the unexploded charges at each post in the pattern prior to departing the operations area by using the "Payload 1 Release" command followed by the "Payload 2 Release" command. Aircrews shall refrain from using the "Scuttle" command when two payloads remain at a given post. Aircrews will ensure that a 914 m (1,000 yd) safety buffer, visually clear of marine mammals, is maintained around

each post as is done during active search operations.

(H) Aircrews shall only leave posts with unexploded charges in the event of a sonobuoy malfunction, an aircraft system malfunction, or when an aircraft must immediately depart the area due to issues such as fuel constraints, inclement weather, and in-flight emergencies. In these cases, the sonobuoy will self-scuttle using the secondary or tertiary method.

(I) The Navy shall ensure all payloads are accounted for. Explosive source sonobuoys (AN/SSQ-110A) that can not be scuttled shall be reported as unexploded ordnance via voice communications while airborne, then upon landing via naval message.

(J) Mammal monitoring shall continue until out of own-aircraft sensor range.

(4) The Navy shall abide by the letter of the "Stranding Response Plan for Major Navy Training Exercises in the SOCAL Range Complex" (available at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>), to include the following measures:

(i) Shutdown Procedures—When an Uncommon Stranding Event (USE—defined in § 216.271) occurs during a Major Training Exercise (MTE) (as defined in the Stranding Plan, meaning including Sustainment, SHAREM, IAC2, JTFEX, or COMPTUEX) in the SOCAL Range Complex, the Navy shall implement the procedures described below.

(A) The Navy shall implement a Shutdown (as defined § 216.271) when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the SOCAL Stranding Communication Protocol that a USE involving live animals has been identified and that at least one live animal is located in the water. NMFS and the Navy shall communicate, as needed, regarding the identification of the USE and the potential need to implement shutdown procedures.

(B) Any shutdown in a given area shall remain in effect in that area until NMFS advises the Navy that the subject(s) of the USE at that area die or are euthanized, or that all live animals involved in the USE at that area have left the area (either of their own volition or herded).

(C) If the Navy finds an injured or dead marine mammal floating at sea during an MTE, the Navy shall notify NMFS immediately or as soon as operational security considerations allow. The Navy shall provide NMFS with species or description of the animal (s), the condition of the animal (s) including carcass condition if the animal(s) is/are dead, location, time of

first discovery, observed behaviors (if alive), and photo or video (if available). Based on the information provided, NMFS shall determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(D) In the event, following a USE, that: (a) qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or (b) animals are seen repeatedly heading for the open ocean but turning back to shore, NMFS and the Navy shall coordinate (including an investigation of other potential anthropogenic stressors in the area) to determine if the proximity of MFAS/HFAS training activities or explosive detonations, though farther than 14 nm from the distressed animal(s), is likely decreasing the likelihood that the animals return to the open water. If so, NMFS and the Navy shall further coordinate to determine what measures are necessary to further minimize that likelihood and implement those measures as appropriate.

(ii) Within 72 hours of NMFS notifying the Navy of the presence of a USE, the Navy shall provide available information to NMFS (per the SOCAL Communication Protocol) regarding the location, number and types of acoustic/explosive sources, direction and speed of units using MFAS/HFAS, and marine mammal sightings information associated with training activities occurring within 80 nm (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80 nm (148 km), 72 hours, period prior to the event shall be provided as soon as it becomes available. The Navy shall provide NMFS investigative teams with additional relevant unclassified information as requested, if available.

(iii) Memorandum of Agreement (MOA)—The Navy and NMFS shall develop an MOA, or other mechanism consistent with federal fiscal law requirements (and all other applicable laws), that allows the Navy to assist NMFS with the Phase 1 and 2 Investigations of USEs through the provision of in-kind services, such as (but not limited to) the use of plane/boat/truck for transport of personnel involved in the stranding response or investigation or animals, use of Navy property for necropsies or burial, or assistance with aerial surveys to discern the extent of a USE. The Navy may assist NMFS with the Investigations by providing one or more of the in-kind services outlined in the MOA, when available and logistically feasible and when the assistance does not negatively affect Fleet operational commitments.

§ 216.275 Requirements for monitoring and reporting.

(a) The Navy is required to cooperate with the NMFS, and any other Federal, state or local agency monitoring the impacts of the activity on marine mammals.

(b) As outlined in the SOCAL Stranding Communication Plan, the Navy must notify NMFS immediately (or as soon as clearance procedures allow) if the specified activity identified in § 216.270(b) is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified in § 216.270(c).

(c) The Navy must conduct all monitoring and/or research required under the Letter of Authorization including abiding by the letter of the SOCAL Monitoring Plan, which requires the Navy to implement, at a minimum, the monitoring activities summarized in Table 1 below (and described in more detail in the SOCAL Monitoring Plan, which may be viewed at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>).

(d) Report on Monitoring required in sub-paragraph (c) of this section—The Navy shall submit a report annually on September 1 describing the implementation and results (through June 1 of the same year) of the monitoring required in paragraph c, above. Navy will standardize data collection methods across ranges to allow for comparison in different geographic locations.

(e) SINKEX, GUNEX, MISSILEX, BOMBEX, Mine Warfare/Countermeasures, and Naval Surface Fire Support—A yearly report detailing the exercise's timelines, the time the surveys commenced and terminated, amount, and types of all ordnance expended, and the results of marine mammal survey efforts for each event will be submitted to NMFS.

(f) IEER exercises—A yearly report detailing the number of exercises along with the hours of associated marine mammal survey and associated marine mammal sightings, number of times employment was delayed by marine mammal sightings, and the number of total detonated charges and self-scuttled charges shall be submitted to NMFS.

(g) MFAS/HFAS exercises—The Navy shall submit an After Action Report to the Office of Protected Resources, NMFS, within 120 days of the completion of any Major Training or Integrated Unit-Level Exercise (Sustainment Exercise, IAC2, SHAREM, COMPTUEX, JTFEX). For other ASW exercises, the Navy shall submit a yearly summary report. These reports (the

AARs and the annual reports) shall, at a minimum, include the following information:

(1) The estimated total number of hours of active sonar operation and the types of sonar utilized in the exercise;

(2) The total number of hours of observation effort (including observation time when active sonar was not operating), if obtainable; and;

(3) All marine mammal sightings (at any distance—not just within a particular distance) to include, when possible, and if not classified:

- (i) Species,
- (ii) Number of animals sighted,
- (iii) Geographic location of marine mammal sighting,
- (iv) Distance of animal from any ship with observers,
- (v) Whether animal is fore, aft, port, or starboard,
- (vi) Direction of animal movement in relation to boat (towards, away, parallel),

(vii) Any observed behaviors of marine mammals.

(4) The status of any active sonar sources (what sources were in use) and whether or not they were powered down or shut down as a result of the marine mammal observation; and

(5) The platform that the marine mammals were initially sighted from.

(h) SOCAL Comprehensive Report—The Navy shall submit to NMFS a draft report that analyzes and summarizes all of the multi-year marine mammal information gathered during all training for which individual reports are required in § 216.175 (d through f). This report shall be submitted at the end of the fourth year of the rule (November 2012), covering activities that have occurred through June 1, 2012.

(i) The Navy shall respond to NMFS comments on the draft SOCAL comprehensive report if NMFS provides the Navy with comments on the draft report within 3 months of receipt. The report shall be considered final after the Navy has addressed NMFS' comments, or 3 months after the submittal of the draft if NMFS does not comment by then.

(j) Comprehensive National Sonar Report—By June 2014, the Navy shall submit a draft National Report that analyzes, compares, and summarizes the active sonar data gathered (through November 2013) from the watchstanders and pursuant to the implementation of the Monitoring Plans for SOCAL, the Hawaii Range Complex (HRC), the Southern California (SOCAL) Range Complex, the Marianas Range Complex, and the Northwest Training Range.

(k) The Navy shall respond to NMFS comments on the draft comprehensive

National Sonar report if NMFS provides the Navy with comments on the draft report within 3 months of receipt. The report will be considered final after the Navy has addressed NMFS' comments, or 3 months after the submittal of the draft if NMFS does not comment by then.

§ 216.276 Applications for Letters of Authorization.

To incidentally take marine mammals pursuant to these regulations, the U.S. Citizen (as defined by § 216.103) conducting the activity identified in § 216.270(c) (i.e., the Navy) must apply for and obtain either an initial Letter of Authorization in accordance with § 216.277 or a renewal under § 216.278.

§ 216.277 Letter of Authorization.

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart, but must be renewed annually subject to annual renewal conditions in § 216.278.

(b) Each Letter of Authorization shall set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (i.e., mitigation); and

(3) Requirements for mitigation, monitoring and reporting.

(c) Issuance and renewal of the Letter of Authorization shall be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

§ 216.278 Renewal of Letters of Authorization and adaptive management.

(a) A Letter of Authorization issued under § 216.106 and § 216.177 for the activity identified in § 216.170(c) will be renewed annually upon:

(1) Notification to NMFS that the activity described in the application submitted under § 216.246 will be

undertaken and that there will not be a substantial modification to the described work, mitigation or monitoring undertaken during the upcoming 12 months;

(2) Receipt of the monitoring reports and notifications within the indicated timeframes required under § 216.275(b) through j); and

(3) A determination by the NMFS that the mitigation, monitoring and reporting measures required under § 216.274 and the Letter of Authorization issued under §§ 216.106 and 216.277, were undertaken and will be undertaken during the upcoming annual period of validity of a renewed Letter of Authorization.

(b) Adaptive Management—Based on new information, NMFS may modify or augment the existing mitigation measures if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammals and if the measures are practicable. Similarly, NMFS may coordinate with the Navy to modify or augment the existing monitoring requirements if the new data suggest that the addition of a particular measure would likely fill in a specifically important data gap. The following are some possible sources of new and applicable data:

(1) Results from the Navy's monitoring from the previous year (either from the SOCAL Range Complex or other locations);

(2) Results from specific stranding investigations (either from the SOCAL Range Complex or other locations, and involving coincident MFAS/HFAS training or not involving coincident use) or NMFS' long term prospective stranding investigation discussed in the preamble to this proposed rule;

(3) Results from general marine mammal and sound research (funded by the Navy or otherwise).

(c) If a request for a renewal of a Letter of Authorization issued under §§ 216.106 and 216.278 indicates that a substantial modification to the described work, mitigation or

monitoring undertaken during the upcoming season will occur, or if NMFS utilizes the adaptive management mechanism addressed in paragraph (b) of this section to modify or augment the mitigation or monitoring measures, the NMFS shall provide the public a period of 30 days for review and comment on the request. Review and comment on renewals of Letters of Authorization would be restricted to:

(1) New cited information and data indicating that the determinations made in this document are in need of reconsideration, and

(2) Proposed changes to the mitigation and monitoring requirements contained in these regulations or in the current Letter of Authorization.

(d) A notice of issuance or denial of a renewal of a Letter of Authorization will be published in the **Federal Register**.

§ 216.279 Modifications to Letters of Authorization.

(a) Except as provided in paragraph (b) of this section, no substantive modification (including withdrawal or suspension) to the Letter of Authorization by NMFS, issued pursuant to §§ 216.106 and 216.277 and subject to the provisions of this subpart, shall be made until after notification and an opportunity for public comment has been provided. For purposes of this paragraph, a renewal of a Letter of Authorization under § 216.278, without modification (except for the period of validity), is not considered a substantive modification.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 216.270(b), a Letter of Authorization issued pursuant to §§ 216.106 and 216.277 may be substantively modified without prior notification and an opportunity for public comment. Notification will be published in the **Federal Register** within 30 days subsequent to the action.

BILLING CODE 3510-22-P

STUDY 1,3, 4 (exposures and behavioral responses)						
	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys	Award monitoring contract, develop SOP, obtain permits	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 48 hours Includes 3 nearshore underwater detonation events
Marine Mammal Observers	Opportunistic as staff and SOP developed	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours	IAC or ULT - 40 hours
Vessel surveys (study 3 and 4 only)	Award monitoring contract, develop SOP	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events	Portions of COMPTUEX/JTFEX, IACs, and ULT- 60 hours Includes 3 nearshore underwater detonation events
Shore based surveys (study 4 only)		Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography	Nearshore underwater detonation events near appropriate coastal topography
STUDY 2 (geographic redistribution)						
	FY08	FY09	FY10	FY11	FY12	FY13
Aerial surveys before and after training events	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours	Portions of COMPTUEX and/or JTFEX, IACs, or ULT- 50 hours
Passive Acoustics	Award monitoring contract	Order devices and determine best location; integrate SOAR M3R classification data (beaked whales)	Installation of up to 5 autonomous devices in the SOCAL study area and begin recording; integrate SOAR M3R classification data (beaked whales)	Continue recording from devices Begin data analysis; integrate SOAR M3R classification data (beaked whales)	Continue recording from devices and data analysis; integrate SOAR M3R classification data (beaked whales)	Data Analysis and continue recording from devices and data analysis; integrate SOAR M3R classification data (beaked whales)
STUDY 5 (mitigation effectiveness)						
	FY08	FY09	FY10	FY11	FY12	FY13
Marine mammal observers/lookout comparison	Opportunistic as staff and SOP developed	IAC or ULT- 40 hours	IAC or ULT- 40 hours	IAC or ULT- 40 hours	IAC or ULT- 40 hours	SEASWIT1 or ULT- 40 hours
Aerial surveys before and after training events	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours	Portions of COMPTUEX and/or JTFEX - 50 hours

Table 1 of Subpart X. Summary of monitoring effort proposed in draft Monitoring Plan for SOCAL



Federal Register

**Tuesday,
October 14, 2008**

Part IV

Department of Commerce

Bureau of Industry and Security

**15 CFR Parts 740, 772, and 744
Wassenaar Arrangement Plenary
Agreements Implementation: December
2007 Categories 1, 2, 3, 5 Parts I and II,
6, 7, and 9 of the Commerce Control
List, Definitions; December 2006 Solar
Cells; Final Rule**

DEPARTMENT OF COMMERCE**Bureau of Industry and Security****15 CFR Parts 740, 772 and 774**

[Docket No. 080215206–81243–01]

RIN 0694–AE29

Wassenaar Arrangement Plenary Agreements Implementation: December 2007 Categories 1, 2, 3, 5 Parts I and II, 6, 7, and 9 of the Commerce Control List, Definitions; December 2006 Solar Cells**AGENCY:** Bureau of Industry and Security, Commerce.**ACTION:** Final rule.

SUMMARY: The Bureau of Industry and Security (BIS) maintains the Commerce Control List (CCL), which identifies items subject to Department of Commerce export controls. This final rule revises the Export Administration Regulations (EAR) to implement changes made to the Wassenaar Arrangement's List of Dual Use Goods and Technologies (Wassenaar List) maintained and agreed to by governments participating in the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies (Wassenaar Arrangement, or WA). The Wassenaar Arrangement advocates implementation of effective export controls on strategic items with the objective of improving regional and international security and stability. To harmonize with the changes to the Wassenaar List, this rule revises the EAR by amending certain entries that are controlled for national security reasons in Categories 1, 2, 3, 5 Part I (telecommunications), 5 Part II (information security), 6, 7, and 9; adding new entries to the Commerce Control List (CCL), and amending EAR Definitions, as well as adding definitions.

The purpose of this final rule is to revise the CCL and definitions of terms used in the EAR to implement Wassenaar List revisions that were agreed upon in the December 2007 Wassenaar Arrangement Plenary Meeting and the Wassenaar List provisions regarding solar cells agreed upon in the December 2006 plenary meeting.

This rule also adds or expands unilateral U.S. export controls and national security export controls on certain items to make them consistent with the amendments made to implement the Wassenaar Arrangement's decisions.

DATES: *Effective Date:* This rule is effective October 14, 2008.

FOR FURTHER INFORMATION CONTACT: For questions of a general nature contact Sharron Cook, Office of Exporter Services, Bureau of Industry and Security, U.S. Department of Commerce at (202) 482 2440 or E Mail: scook@bis.doc.gov.

For questions of a technical nature contact:

Category 1: Bob Teer (202) 482–4749.

Category 2: George Loh (202) 482–3570.

Category 3: Brian Baker (202) 482–5534.

Category 5 Part 1: Joe Young (202) 482–4197.

Category 5 Part 2: Michael Pender (202) 482–2458.

Category 6: Chris Costanzo (202) 482–0718 (optics) and Mark Jaso (202) 482–0987 (lasers).

Category 7: Daniel Squire (202) 482–3710.

Category 9: Gene Christensen (202) 482–2984.

Comments regarding the collections of information associated with this rule, including suggestions for reducing the burden, should be sent to OMB Desk Officer, New Executive Office Building, Washington, DC 20503, Attention: Jasmeet Seehra, or by e-mail to jseehra@omb.eop.gov or by fax to (202) 395–7285; and to the Office of Administration, Bureau of Industry and Security, Department of Commerce, 14th and Pennsylvania Avenue, NW., Room 6883, Washington, DC 20230.

SUPPLEMENTARY INFORMATION:**Background**

In July 1996, the United States and thirty-three other countries gave final approval to the establishment of a new multilateral export control arrangement called the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual Use Goods and Technologies (Wassenaar Arrangement or WA). The Wassenaar Arrangement contributes to regional and international security and stability by promoting transparency and greater responsibility in transfers of conventional arms and dual use goods and technologies, thus preventing destabilizing accumulations of such items. Participating states have committed to exchange information on exports of dual use goods and technologies to non-participating states for the purposes of enhancing transparency and assisting in developing common understandings of the risks associated with the transfers of these items.

Expanded or New Export Controls

This rule imposes new or expanded NS Column 1 controls. This rule

imposes a license requirement pursuant to section 742.4(a) of the EAR for exports and reexports to all destinations, except Canada, of certain commodities (and related software and technology) described in Export Control Classification Number 9A012.b.4 (certain air breathing reciprocating or rotary internal combustion type engines). This rule also imposes such a license requirement for certain software and technology controlled under ECCN 3D001 and 3E001 related to the development or production of certain solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays. These destinations have an “X” indicated in NS column 1 on the Commerce Country Chart of Supplement No. 1 to Part 738. The purpose of the controls is to ensure that these items do not make a contribution to the military potential of any other country or combination of countries that would prove detrimental to the national security of the United States. For designated terrorism supporting countries or embargoed countries, the applicable licensing policies are found in Parts 742 and 746 of the EAR, and Supplement No. 1 to Part 736 of the EAR for Syria.

This rule imposes new or expands NS Column 2 controls. This rule imposes a license requirement under section 742.4(a) of the EAR for exports and reexports of commodities (and related software and technology) described in ECCNs 1A006 (Equipment, specially designed or modified for the disposal of improvised explosive devices, and specially designed components and accessories therefor), 1A007 (Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means), 3A001.e.4, solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays which are “space qualified,” having an average efficiency exceeding 20% at an operating temperature of 301 K (28 °C) under simulated “air mass zero” illumination with an irradiance of 1,367 watts per square meter, and 3C002.e (all resists designed or optimized for use with imprint lithography equipment specified by 3B001.f.2. that use either a thermal or photo-curable process) to destinations other than Country Group A:1, cooperating countries (see Supplement No. 1 to Part 740 of the EAR), Bulgaria, Czech Republic, Estonia, Hungary, Iceland, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. This NS column 2 license requirement applies to destinations that have an “X” indicated in NS column 2

on the Commerce Country Chart of Supplement No. 1 to Part 738 of the EAR. The purpose of the controls is to ensure that these items do not make a contribution to the military potential of countries in Country Group D:1 that would prove detrimental to the national security of the United States. For designated terrorism supporting countries or embargoed countries, the applicable licensing policies are found in Parts 742 and 746 of the EAR, and Supplement No. 1 to Part 736 of the EAR for Syria.

The licensing policy for national security controlled items exported or reexported to any country except a country in Country Group D:1 (see Supplement No. 1 to Part 740 of the EAR) is to approve license applications unless there is a significant risk that the items will be diverted to a country in Country Group D:1. The general policy for exports and reexports of items to Country Group D:1 is to approve license applications when BIS determines, on a case by case basis, that the items are for civilian use or would otherwise not make a significant contribution to the military potential of the country of destination that would prove detrimental to the national security of the United States.

This rule imposes new or expands anti terrorism (AT) controls. This rule imposes a unilateral U.S. license requirement to export and reexport commodities (and related software and technology) controlled under ECCNs 1A006 (Equipment, specially designed or modified for the disposal of improvised explosive devices, and specially designed components and accessories therefor), 1A007 (Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means), 3A001.e.4 solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays as described above, 3A991.o solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays which are "space qualified" and not controlled by 3A001.e.4, 3C002.e (all resists designed or optimized for use with imprint lithography equipment specified by 3B001.f.2. that use either a thermal or photo-curable process), and 9A012.b.4 (certain air breathing reciprocating or rotary internal combustion type engines) for AT reasons to Cuba, Iran, North Korea, Sudan and Syria, in addition to the national security controls imposed to implement the Wassenaar Arrangement's decisions. These unilateral export controls are necessary because under Section 6(j) of the Export

Administration Act of 1979 a license is required for items that could make a significant contribution to the military potential of such country or that could enhance the ability of such country to support acts of international terrorism. There is a general policy of denial for applications to export or reexport to terrorism supporting countries, as set forth in Part 742 of the EAR. In addition, certain of these countries are also subject to embargoes, as set forth in Part 746 of the EAR and Supplement No. 1 to Part 736 of the EAR for Syria. A license is also required for the export and reexport of these items to specially designated terrorists and foreign terrorist organizations, as set forth in Part 744 of the EAR; license applications to these parties are reviewed under a general policy of denial.

Task Force on Editorial Issues (TFEI)

The Wassenaar Arrangement Task Force on Editorial Issues (TFEI) made revisions, editorial in nature, to clarify or correct control text or remove extraneous text. The TFEI revisions (over 2,000) were agreed upon by the WA in December 2007. This rule implements only those TFEI revisions that coincide with the revisions to ECCNs affected by the 2007 WA agreements. Other TFEI revisions will be implemented in a separate rule.

Revisions to the Commerce Control List

This rule revises a number of entries on the Commerce Control List (CCL) to implement the December 2007 agreed revisions to the Wassenaar List of Dual Use Goods and Technologies. This rule also revises language to provide a complete or more accurate description of controls in certain ECCNs. A description of the specific amendments to the CCL pursuant to the December 2007 Wassenaar Agreement is provided below. Newly added ECCNs, as described below, are as follows: 1A006 and 1A007. The amended ECCNs, as described below, are 1A004, 1E001, 1E201, 2B001, 2B002, 2B006, 2B007, 2B008, 3A001, 3A002, 3A229, 3B001, 3C002, 3C005, 3C006, 3D001, 3E001, 5A001, 5A002, 6A001, 6A005, 6A995, 7A002, 7A003, 7A008, 9A012, and 9E003.

Category 1 Materials, Chemicals, "Microorganisms," and Toxins

ECCN 1A004 (Protective and detection equipment and components) is amended by:

a. Revising the Related Definitions paragraph of the List of Items Controlled section to move the definition for "adapted for use in war" from a Note in

ECCN 1A004 to the Related Definitions paragraph, and adding a new definition for "riot controls agents" to clarify the meaning of these terms as they are used in the control parameters of this entry;

b. Revising paragraphs 1A004.a (gas masks, filter canisters and decontamination equipment), 1A004.b (protective suits, gloves and shoes), and 1A004.c (Nuclear, biological and chemical (NBC) detection systems), to specifically list the agents and materials this equipment is designed or modified to defend against that would cause this equipment to be classified under this entry; and

c. Replacing the last Note of ECCN 1A004 with Technical Notes 1 and 2 to provide additional information about what ECCN 1A004 includes and does not include, as well as providing a technical definition of the term 'simulant'.

ECCN 1A006 is added to the CCL to control "Equipment, specially designed or modified for the disposal of improvised explosive devices, and specially designed components and accessories therefor."

Rationale: This ECCN is added to prevent potential terrorists from discovering how to defeat the devices and ensure they are used only by properly vetted end-users.

ECCN 1A007 is added to the CCL to control "Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means"

Rationale: This ECCN is added to prevent potential terrorists from obtaining such devices and ensure they are used by properly vetted end-users.

ECCN 1E001 (development or production technology) is amended by:

a. Adding two new ECCNs 1A006 and 1A007 to the heading to control the "development" and "production" technology for those commodities; and

b. Revising the NS and NP controls to harmonize with the newly added ECCNs.

ECCN 1E201 (use technology) is amended by:

a. Adding 1A007 to the heading to control the "use" technology for NP reasons because 3A232.a was moved to 1A007.a and 1A007.b overlaps with 3A229; and

b. Revising the NP controls to clarify that NP applies only to those portions of the ECCNs that are controlled for NP reasons.

Category 2 Materials Processing

Technical Notes for 2B001 to 2B009 are amended by removing Notes 5 and 6, and adding new Notes 5 and 6 to

harmonize with the Wassenaar Arrangement's Technical Notes.

ECCN 2B001 (Machine tools) is amended by:

- a. Revising the Heading to add "as follows" to harmonize with the Wassenaar Arrangement's List;
 - b. Redesignating Related Controls, Notes 1 through 3, as Related Controls Notes 2 through 4, and adding a new Note 1 to reference ECCN 2B002 for optical finishing machines;
 - c. Removing the word "parts" and adding an "or" after paragraph c in Note 2 at the beginning of the items paragraph of the List of Items Controlled section as part of the TFEI revisions, because the word "parts" is superfluous;
 - d. Removing a comma and the word "characteristics" from 2B001.a as part of the TFEI revisions, to correct the punctuation and remove a superfluous word;
 - e. Replacing the words "the production of" with "producing", removing the word "characteristics", and changing the outline format of the paragraphs from numeric to alphabetic, and in the Note to 2B001.a as part of the TFEI revisions to improve clarity and readability of this entry;
 - f. Removing a comma and the word "characteristics" from 2B001.b, 2B001.b.4, and 2B001.c, as part of the TFEI revisions to correct punctuation and remove a superfluous word;
 - g. Replacing the numeric outline with an alphabetic outline, adding a comma and the word "of" and removing the word "characteristics" in paragraph (a) in the Notes to 2B001.c as part of the TFEI revisions to improve clarity and readability;
 - h. Adding a comma and removing the word "characteristics" to 2B001.e as part of the TFEI revisions to correct punctuation and remove superfluous word;
 - i. Replacing the word "which" with "and all of the following" in 2B001.e.2 as part of the TFEI revisions to clarify the entry;
 - j. Removing the word "have" and capitalizing the word "A" in 2B001.e.2.b as part of the TFEI revisions to clarify the entry; and
 - k. Replacing the parameter "5,000 mm" with "5 m" in 2B001.f as part of the TFEI revisions to harmonize with Wassenaar style.
- ECCN 2B002 (Numerically controlled machine tools using a magnetorheological finishing (MRF) process) is amended by:
- a. Removing a comma and adding the phrase "for selective material removal" to the heading to better distinguish finishing tools that only remove

material from selected locations as opposed to polishing tools that are used to improve the finish of an entire surface;

- b. Adding a definition for the two new terms "inflatable membrane tool finishing" and "Fluid jet finishing" to the Related Definitions paragraph of the List of Items Controlled section for reasons explained in the Rationale below;
- c. Revising the number of axes from "three" to "four" in 2B002.c section for reasons explained in the Rationale below;
- d. Adding single quotes around the terms listed in 2B002.d.1 'Magnetorheological finishing (MRF)' and d.2 'Electrorheological finishing (ERF)', because these terms are defined within this ECCN; and
- e. Replacing the period with a semi-colon in 2B002.d.3; and adding two new finishing processes: 'Inflatable membrane tool finishing' and 'Fluid jet finishing' in 2B002.d.4 and 2B002.d.5 respectively, for reasons explained in the Rationale below.

Rationale: A common element of finishing machines is that the finishing tool is relatively small compared to the workpiece and makes contact over a small area within the aperture of the workpiece (typically an optical component) at any one point in time, as opposed to traditional finishing/polishing tools that make contact over a large area of the workpiece surface. For this reason, the terms 'sub-aperture finishing' and 'small tool' are sometimes used to describe these machines. Some examples of tools using sub-aperture/small tool processes are Magnetorheological Finishing (MRF), Eletrorheological Finishing (ERF), the Loh AII and Zeeko inflatable membrane, and fluid jet finishing machines. These machines use multiple axes (3–7) to manipulate the finishing tool and Computer Numerical Control (CNC) software to coordinate the axes.

Many of the applications of such machines are for flat or spherical components and the software could be restricted to this capability allowing export of less capable machines. These machines use proprietary software capable of producing aspheres or freeform surfaces. However, this software does not have to be part of the machine controller, but can be a standalone item that creates a CNC program for the finishing machine.

The free transfer of finishing machines to countries of concern would give those countries an improved ability to produce military critical optical components. An optical finishing machine can produce equal or better

quality aspheric optics than controlled diamond turning machines or high precision grinders, and can also produce freeform optics such as wavefront plates and conformal windows. The numerical control provides the ability to produce aspheric and non-spherical optics in minutes to hours as opposed to days of highly skilled labor for manual production. It is for this reason that inflatable membrane tool finishing and fluid jet finishing processes are being added to the CCL.

ECCN 2B006 (Dimensional inspection or measuring systems and equipment) is amended by:

- a. Adding a Note under the Nuclear non-Proliferation (NP) controls in the License Requirements section, stating "NP applies to measuring systems in 2B006.b.1.c that maintain, for at least 12 hours, over a temperature range of ± 1 K around a standard temperature and at a standard pressure, all of the following: A "resolution" over their full scale of 0.1 μm or less (better); and a "measurement uncertainty" equal to or less (better) than $(0.2 + L/2,000) \mu\text{m}$ (L is the measured length in mm)."

Rationale: The Nuclear Suppliers Group has not adopted the revisions pertaining to measuring systems in 2B006.b.1.c that the Wassenaar Arrangement has adopted. Therefore, these measuring systems are controlled for nuclear non-proliferation reasons when they meet the criteria that were in place prior to the publication of this rule, which are outlined in the newly added NP note.

- b. Adding single quotes around the term 'Linear displacement' in 2B006.b.1 and replacing the double quotes with single quotes around the same term as it appears in the technical note to 2B006.1, as part of the TFEI revisions, because the term is defined in this ECCN;

- c. Removing the word "characteristics" from 2B006.b.1.b as part of the TFEI revisions to remove a superfluous word;

- d. Removing the word "or" from 2B006.b.1.b.2 as part of the TFEI revisions for clarity;

- e. Revising the temperature parameter in 2B006.b.1.c.2, as explained in the Rationale below;

- f. Revising the 'measurement uncertainty' parameter in 2B006.b.1.c.2.b, as explained in the Rationale below;

- g. Replacing the period with a semi-colon in 2B006.b.1.d as part of the TFEI revisions to correct the punctuation; and
- h. Adding a Note following paragraph 2B006.c that states, "Machine tools, which can be used as measuring

machines, are controlled if they meet or exceed the criteria specified for the machine tool function or the measuring machine function.” to conform to the Wassenaar List.

Rationale: Studies into laser interferometers concluded that the value of the measurement uncertainty in 2B006.b.1.c.2.b includes taking into account the refractive index of air in order to achieve a measurement uncertainty of $0.2 + L/2,000 \mu\text{m}$. Lasers used in these systems are now extremely stable and contribute very little to the overall measurement uncertainty, whereas the compensation for environmental conditions contribute approximately 4/5 towards the systems measurement uncertainty. Therefore it is important to acknowledge that the system measurement uncertainty includes compensation for the refractive index of air.

The reference to standard pressure in 2B006.b.1.c.2 has been removed as this would be difficult to achieve when testing longer ranges, and compensating for the refractive index of air negates this requirement. However, reference to temperature remains as it has an effect on the systems optics as well as the refractive index of air and contributes to the $0.2\mu\text{m}$ component of the measurement uncertainty.

The term ‘capable of achieving’ in 2B006.b.1.c.2.b has been introduced to avoid laser interferometer systems being exported with poor environmental sensors in the compensation units, resulting in measurement uncertainty values outside the control parameters, which could then be replaced with compensator units with good environment sensors, making the system’s measurement uncertainty as good as or better than those of the control parameters after export.

ECCN 2B007 (Robots) is amended by:

- Replacing the double quotes with single quotes around the term ‘scene analysis’ in 2B007.a and the Technical Note that follows, as part of the TFEI revisions, because this term is a definition defined within ECCN 2B007, instead of a global definition in part 772 of the EAR;

- Adding the word “potentially” to 2B007.b and adding a Note after 2B007 that excludes robots specially designed for paint-spraying booths from control in this entry. The reason for this change is explained in the rationale below; and

- Changing the NP controls from “2B007.b and 2B007.c and to specially designed controllers and ‘end effectors’ therefore” to “equipment that meets or exceeds the criteria in ECCNs 2B207.”

Rationale: Robots which can be used for a military purpose and should be

controlled are those with the capability of handling high explosives in potentially explosive atmospheres. To make the meaning of ‘explosive munitions environments’ clear, the term “potentially” is added before ‘explosive munitions environments’. In addition, a new Note to decontrol robots specially designed for paint-spraying booths is added. A spraying robot alone is not considered to be a military concern, and today spraying robots are widely used in automobile manufacturing.

ECCN 2B008 (Assemblies or units, specially designed for machine tools, or dimensional inspection or measuring systems and equipment) is amended by:

- Revising the reference in the Nota Bene (N.B.) following 2B008.a for laser systems from “Note to 2B006.b.1” to “2B006.b.1.c and d.” to conform with linear laser systems in 2B006; and
- Revising the reference in the Nota Bene (N.B.) following 2B008.b for laser systems from “Note to 2B006.b.1” to “2B006.b.2” to conform with rotary systems in 2B006.

Category 3 Electronics

ECCN 3A001 (Electronic components) is amended by:

- Adding the phrase “and specially designed components therefor” to the heading to match the heading with the scope of the entry as part of the TFEI revisions;

- Revising the GBS paragraph of the License Exceptions section to fix a typographical error, i.e., “TWAS” to “TWTAs”;

- Revising the Note 2 in the Related Controls paragraph of the List of Items Controlled section to harmonize it with the revisions to the Items paragraph of this ECCN;

- Removing the second and third sentences in the “Related Definitions” paragraph of the List of Items Controlled section to harmonize it with the revisions to the Items paragraph of this ECCN;

- Removing paragraph 3A001.e.1.c (space qualified and radiation hardened photovoltaic arrays) in the “items” paragraph of the List of Items Controlled section to move controls to a more appropriate location in e.4, because batteries and photovoltaic devices reflect different technologies;

- Adding a new paragraph 3A001.e.4 and related technical note to the “items” paragraph in the List of Items Controlled section to explicitly list solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays in order to remove any ambiguity in the control of these technologies.

- Removing “neural network integrated circuits” from 3A001.a.2,

which removes the overlapping control between 3A001.a.2 and 3A001.a.9;

- Replacing the period with a semi-colon in 3A001.a.5.a.5 to correct the punctuation as part of the TFEI revisions;

- Adding a comma and an “and” to 3A001.a.6 as part of the TFEI revisions to clarify the meaning of the sentence;

- Adding single quotes around the term ‘field programmable logic devices’ as part of the TFEI revisions to indicate that the definition for this term is located in this entry;

- Revising the type of note from N.B. to Technical Note after the Note to 3A001.a.7 to correct the type of note and to add single quotes around the term ‘field programmable logic devices’ as part of the TFEI revisions to indicate that the definition for this term is located in this entry;

- Replacing the words “which meets” with “and having” and removing the word “characteristics” from Note 1 to 3A001.b.1 and from paragraph b of Note 2 to 3A001.b.1 as part of the TFEI revisions to clarify the entry;

- Replacing the words “which meets” with “having” and removing the word “characteristics” from Note 2 to 3A001.b.1 as part of the TFEI revisions to clarify the entry;

- Adding the word “Tubes” to 3A001.b.1.a.1 and 3A001.b.1.a.2 as part of the TFEI revisions to better describe the commodities;

- Replacing the word “with” with “having” and removing the word “characteristics” in 3A001.b.1.a.4 as part of the TFEI revisions to clarify the entry;

- Adding initial capitalization and double quotes around the term “Monolithic Integrated Circuit” as part of the TFEI revisions because it is an acronym and a defined term in part 772;

- Adding the words “solid state” and a comma after amplifiers in 3A001.b.4 to clarify the text, as described in the Rationale below;

Rationale for g. through q. above:
In 2003 it was agreed by the Wassenaar Arrangement to update the control text for microwave solid state amplifiers and include text for assemblies containing these amplifiers. The existing control text, as written, goes beyond the original intent to control microwave assemblies/modules containing solid state amplifiers and can be interpreted to control traveling wave tube amplifiers, which are to be controlled as described in 3A001.b.8. The addition of the words solid state to describe the type of amplifiers contained in the microwave assembly will eliminate this interpretation.

r. Adding double quotes around the term “fractional bandwidth” in 3A001.b.4.f.2 as part of the TFEI revisions, because this is a global definition found in part 772;

s. Replacing the period with a semi-colon in 3A001.b.4.f.3 as part of the TFEI revisions to correct the punctuation;

t. Adding an “and” in 3A001.b.5 as part of the TFEI revisions to add clarity to the sentence;

u. Removing the words “Mixers and” and adding the words “and harmonic mixers,” and adding a reference to “3A002.d” in 3A001.b.7, as explained in the Rationale below;

Rationale: As a consequence of the deletion of subparagraph 3A001.b.6 in December 2003, there is ambiguity regarding the distinction between “mixers” “converters” in 3A001.b.7. Prior to December 2003, generic mixers as standalone components were controlled in then-3A001.b.6 (microwave assemblies >31.8 GHz). As part of the deletion of 3A001.b.6, there was a deliberate decision to release controls on mixers that are standalone components. Thus, retention of the word “mixers” in 3A001.b.7 is confusing, and best modified with the term “harmonic mixers,” because such mixers are typically used to extend the frequency range of systems described in 3A002.c, 3A002.d, 3A002.e, and 3A002.f.

v. Revising the reference in 3A001.b.8 from reading “3A001.b” to read “3A001.b.1” to correct the reference;

w. Adding double quotes around “monolithic integrated circuit”, removing a comma, adding an “and”, and removing the word “characteristics” in 3A001.b.9 as part of the TFEI revisions to clarify the entry and make it clear that “monolithic integrated circuit” is a global definition in part 772 of the EAR;

x. Adding single quotes around the term ‘turn-on time’ in 3A001.b.9.a and Technical Note 2 following paragraph 3A001.b.9.c.2 as part of the TFEI revision, because this term is defined in this entry;

y. Adding the word “having” in 3A001.b.9.c and 3A001.g.2 as part of the TFEI revisions to clarify the entry;

z. Removing the word “having” from 3A001.b.9.c.2 as part of the TFEI revisions to clarify the entry;

aa. Removing the word “control” from Technical Note 1 following paragraph 3A001.b.9.c.2 as part of the TFEI revisions, because the word is superfluous;

bb. Replacing a semi-colon with a comma in Technical Note 2 following paragraph 3A001.b.9.c.2 to fix the

punctuation as part of the TFEI revisions;

cc. Removing commas before and after “as follows” in 3A001.c. to fix punctuation as part of TFEI revisions;

dd. Revising the frequency from “2.5 GHz” to “6 GHz” in 3A001.c.1.a and 3A001.c.1.b, as explained in the rationale below;

ee. Removing the comma in 3A001.c.1.b as part of the TFEI revisions;

ff. Removing a comma and adding an “and” in 3A001.c.1.c and 3A001.e.3 as part of the TFEI revisions to clarify the entry;

gg. Revising the bandwidth from “50 MHz” to “100 MHz” in 3A001.c.1.c.3, as explained in the Rationale below;

hh. Revising the frequency from “1 GHz” to “2.5 GHz” in 3A001.c.2, as explained in the Rationale below;

Rationale: Use of acoustic wave devices in civilian application is indeed becoming predominant between 1 and 6 GHz. However, they usually do not require high rejection and/or high bandwidth. Therefore, this rule has changed the frequency upper limit in paragraphs 3A001.c.1.a and 3A001.c.1.b to 6 GHz without changing bandwidth or rejection. Below 1 GHz, there is an increasing civilian need for bandwidth of 100 MHz, but once again, these civilian applications do not usually require high rejection. Bulk acoustic wave devices above 2.5 GHz are considered military significant (e.g., S-band and X-band radar). Therefore this rule has limited the frequency extension to 2.5 GHz, allowing the exclusion of most of the items used only in civilian applications (2.4 GHz and below) from control in this entry.

ii. Adding a comma after “materials” and replacing “with” with “and having” in 3A001.d as part of the TFEI revisions to clarify the entry;

jj. Removing the comma in 3A001.e as part of the TFEI revisions to correct the punctuation of the entry;

kk. Adding single quotes around the term ‘Cells’ and removing the comma in 3A001.e.1 as part of the TFEI revisions to indicate that ‘cells’ are defined in the entry and to clarify the entry;

ll. Adding single quotes around the terms ‘primary cells’ and ‘energy density’ in 3A001.e.1.a, 3A001.e.1.b and Technical Note 1 as part of the TFEI revisions, because these terms are defined in the entry;

mm. Adding the abbreviation of “Ah” for the term “ampere-hours” in Technical Note 1 after paragraph 3A001.e.1.b as part of the TFEI revisions to clarify the entry;

nn. Replacing “and” with “an” in front of “electrolyte” in Technical Note

2 after paragraph 3A001.e.1.b to correct grammar as part of the TFEI revisions;

oo. Removing a comma from 3A001.e.2 as part of the TFEI revisions to correct the punctuation in the entry;

pp. Adding an “and” to 3A001.e.2.a and 3A001.e.2.b as part of the TFEI revisions to clarify the entry;

qq. Adding a comma after “solenoids” and replacing a comma with “and” in 3A001.e.3 as part of the TFEI revisions; and, replacing a period with a semi-colon at the end of 3A001.f.2 as part of the TFEI revisions;

rr. Adding single quotes around the term ‘thyristor modules’ and a comma after this term in 3A001.g as part of the TFEI revisions to indicate that these modules are defined in the entry, and replacing a comma with an “and” as part of the TFEI revisions to clarify the entry;

ss. Correcting the numbering of the paragraphs in 3A001.g;

tt. Adding “having” in 3A001.g.2 as part of the TFEI revisions to clarify the entry; and

uu. Adding single quotes around the term ‘thyristor modules’ in Note 2 to 3A001.g as part of the TFEI revisions to indicate that these modules are defined in the entry, and to clarify the entry.

ECCN 3A002 (General purpose electronic equipment) is amended by:

a. Revising the heading to implement the TFEI to clarify the scope of the entry;

b. Revising a reference to “3A002.g.2” to read “3A002.g.1” in the Related Controls paragraph of the List of Items Controlled section to correct this paragraph reference;

c. Removing a comma and adding an “and” to 3A002.a.3, 3A002.a.4, and 3A002.a.6, as well as removing commas from 3A002.a, as part of the TFEI revisions to clarify the entry;

d. Adding single quotes around the term ‘continuous throughput’ in 3A002.a.5.b and 3A002.a.b.6 as part of the TFEI revisions, because it is a defined term within the Technical Note that follows this paragraph;

e. Revising “Technical Note” to read “Technical Notes” and separating the technical note that follows 3A002.a.5.b into two separate Technical Notes and adding single quotes around ‘continuous throughput’ as part of the TFEI revisions, for the purpose of clarity;

f. Adding double quotes around “signal analyzers” in the Note that follows 3A002.b, as part of the TFEI revisions, because this is a global term that is defined in part 772 of the EAR;

g. Adding a hyphen between the words “radio” and “frequency” and

removing a comma in 3A002.c, as part of the TFEI revisions to add clarity;

h. Adding single quotes around the term 'pulse duration' in 3A002.d.1 to indicate this is defined within this ECCN, as part of the TFEI revisions;

i. Removing "the term" from Note 1 after 3A002.d.4 as part of the TFEI revisions to remove superfluous words;

j. Revising 3A002.g (atomic frequency standards) to make adjustments based on technical advancements in this area, as explained in the Rationale below;

Rationale: Precision timing sources enable precision navigation and precision sensor array synchronization. Miniaturized precision timing sources are a potential enabling technology for small unmanned vehicles. Miniaturization has also transformed the applications for which rubidium standards can be used. Advances in technology have now made possible very small atomic clocks—which happen also to be based on energy state transitions of rubidium. Unfortunately, the control text in Category 3 did not anticipate the new technology and specifically exempted all so-called "rubidium clocks" that are not space-qualified from control, thus decontrolling atomic clocks and technology of concern. This revision to 3A002.g is intended to avoid capturing rubidium clocks, which are based on the older lamp-pumped technology, because those clocks require more power to operate. This revision is also intended to control emerging technology (so-called coherent population trapping (CPT) technique or laser-pumped gas cell technique) that has far more significant military applications.

ECCN 3A229 (Firing Sets) is amended by revising the Related Controls paragraph to add a reference to 1E001 for "development" and "production" technology and 1E201 for "use" technology.

ECCN 3A232 (Detonators and multipoint initiation systems) is amended by:

a. Redesignating Related Controls notes 1 and 2 to 2 and 3, and adding a new note 1 that reads "See 1A007 for electrically driven explosive detonators."; and

b. Removing and reserving 3A232.a and all but the last sentence of the technical note, because electrically driven explosive detonators are now controlled in ECCN 1A007.

ECCN 3B001 (Equipment for manufacturing of semiconductor devices or materials, and specially designed components and accessories therefore) is amended by:

a. Removing a comma from the heading as part of the TFEI revisions to correct punctuation;

b. Adding initial capitalization to the term 'Metal Organic Chemical Vapor Deposition' in 3B001.a.2 as part of the TFEI revisions to correct format and to indicate the meaning of the acronym MOCVD;

c. Removing a comma and adding an 'and' to 3B001.b and 3B001.f.1 as part of the TFEI revisions to correct grammar;

d. Adding 'Chemical Vapor Deposition' in front of the acronym (CVD) in 3B001.d as part of the TFEI revisions to add clarity;

e. Removing the comma after "equipment" in 3B001.f. as part of the TFEI revisions to add clarity;

f. Removing a comma and adding an "and" in 3B001.f.1. as part of the TFEI revisions to add clarity;

g. Adding single quotes around 'minimum resolvable feature size' in 3B001.f.1.b and in the Technical Note that follows, to indicate that this term is defined in the Technical Note that follows that paragraph;

h. Revising 3B001.f.3 (equipment specially designed for mask making or semiconductor device processing) to clarify the scope of the control;

i. Adding a comma to 3B001.g as part of the TFEI revisions, to correct the punctuation; and

j. Replacing the period with a semicolon at the end of 3B001.h as part of the TFEI revisions to correct the punctuation.

ECCN 3C002 (Resist materials) is amended by:

a. Revising the heading as part of the TFEI revisions, to clarify the scope of the entry; and

b. Revising the reference to "3C002.b through .d" to read "3C002.b through .e" in the eligibility paragraphs for License Exceptions GBS and CIV to reflect the new paragraph 3C002.e; and

c. Adding a new paragraph 3C002.e to control "all resists designed or optimized for use with imprint lithography equipment specified by 3B001.f.2 that use either a thermal or photo-curable process".

Rationale: With the tools used for imprint lithography now being controlled as a result of the 2006 Wassenaar Arrangement agreements, for completeness, the resists materials used with these controlled tools are being controlled through this new paragraph 3C002.e. Resists for imprint lithography equipment is now controlled in the same manner as controls on optical lithography equipment. Resists are indispensable materials for the exposure process in semiconductor

manufacturing. These semiconductors are used in many military items.

ECCN 3C005 (Silicon carbide (SiC) wafers) is amended by revising the heading to add controls resulting from technical advancements and to make technical clarifications, as explained in the Rationale below.

Rationale: Gallium nitride (GaN) transistors have demonstrated performance at power densities well beyond microwave transistors based on gallium arsenide (GaAs). Power levels achieved from GaN transistors have also exceeded by a factor of four to five those obtained from comparable GaAs transistors at frequencies up to 40 GHz.

GaN substrates may also be used to produce high brightness Light-Emitting Diodes (LEDs) and semiconductor blue laser diodes. The resistivity parameter (10,000 ohm-cm) of this ECCN was chosen to control GaN substrates and wafers used to produce microwave devices with significant military potential, while excluding GaN substrates and wafers for LED or diode production from control. Substrates for LED or diode production are generally lower in resistivity. Some substrates for commercial microwave products may be controlled under this revision.

Aluminum nitride (AlN) substrates have also shown great promise as a substrate for the deposition of GaN epitaxial layers. They possess high thermal conductivity, low thermal expansion mismatch, as well as relatively low lattice mismatch with GaN, and have great potential for use in military high power microwave applications.

It is also important to control the ingots and boules of SiC, GaN and AlN that have the resistivity of the wafers sliced from the ingots and boules. Otherwise, there would be a loop-hole in the controls. For this reason, ingots, boules and other preforms of those materials have been added to the Heading of this entry.

This revision to ECCN 3C005 also makes a technical clarification, which is also applied to the new ECCN 3C006, noting that the resistivity parameter is a substrate resistivity measurement made at room temperature (20°C).

ECCN 3C006 is added to control "Substrates" specified in 3C005 with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride.

Rationale: A single layer of epitaxy that is of the same material as the substrate should be controlled, as this type of epitaxy ("homo-epitaxy") can be used to make RF devices. Presently, the CCL only controls epitaxy material, which is different than the substrate

material (“hetero-epitaxy”). The creation of ECCN 3C006 closes this loop-hole by controlling these substrates.

ECCN 3D001 (Development and production software) is amended by changing Related Controls Notes 1 and 2 to conform to the new 3A001 Related Controls for solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays in order to remove any ambiguity in the control of these technologies.

ECCN 3E001 (Development and production technology) is amended by:

- Revising the Heading to add ECCN 3A999 to the list of excluded ECCNs controlled by this entry, because this Wassenaar created ECCN did not intend to control ECCN 3A999 items;

- Revising the national security control text in the License Requirement section to add ECCN 3C006 in order to control the “development” and “production” technology for this newly controlled commodity;

- Removing “The term” from the Technical Note in the Items paragraph of the List of Items Controlled section of 3E001, as part of the TFEI revisions, because these words are superfluous; and

- Revising Related Controls Note 2 to conform to the new 3A001 Related Controls for solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays in order to remove any ambiguity in the control of these technologies.

Category 5 Part I Telecommunications

ECCN 5A001 (Telecommunications systems, equipment, and components) is amended by:

- Adding the words “and accessories” to the heading as part of the TFEI revisions, to more correctly state the scope of this entry;

- Replacing a period with a semi-colon in 5A001.a.3 as part of the TFEI revisions, to correct the punctuation;

- Revising 5A001.b.1 (underwater communications systems) by adding “untethered” and by adding a new paragraph 5A001.b.1.d to control systems using lasers or light-emitting diodes (LEDs) because of technical advancements for this type of equipment;

Rationale: The existing control text in this entry was written years ago and was written with regard to underwater communications technologies which were known at the time. New technologies have emerged that are not specified by the current controls but which have capabilities similar to, or even exceeding, those currently

specified. The addition of paragraph 5A001.b.1.d is necessary to close the loophole for underwater untethered optical communications using laser or LED.

- Removing the word “characteristics” from 5A001.b.1, 5A001.b.2, 5A001.b.3, and 5A001.e as a part of the TFEI revisions because it is superfluous;

- Replacing a comma with the word “and” in 5A001.b.3 and 5A001.b.4 as part of the TFEI revisions to correct the grammar;

- Replacing “1.0 Watt” with “1 W” in the Note to 5A001.b.3 as a part of the TFEI revisions, because this is the standard way of stating such a parameter;

- Adding single quotes around the term ‘voice coding’ in 5A001.b.6 and the Technical Note that follows as a part of the TFEI revisions because this term is defined within the entry;

- Adding single quotes around the term ‘proof test’ in 5A001.c.1 and the Technical Note that follows as part of the TFEI revisions because this term is defined within the entry;

- Adding a comma and replacing the period with a semi-colon in 5A001.c.2 as part of the TFEI revisions to correct the punctuation;

- Replacing a period with a semi-colon in 5A001.d. as part of the TFEI revisions to correct punctuation;

- Adding initial capitalization to “Microwave Landing Systems” because it is followed by the acronym (MLS) in the Note to 5A001.d and replacing a period with a semi-colon as part of the TFEI revisions;

- Adding initial capitalization to “Line Of Bearing” because it is followed by the acronym (LOB) in 5A001.e.2, and replacing the period with a semi-colon to correct the punctuation as part of the TFEI revisions;

- Removing the word “cellular” from 5A001.f to account for technical advancements of this equipment;

Rationale: Manufacturers are being asked to design jamming equipment for satellite telephony systems that are being used in warfare. The systems are not specially designed for military use. This equipment is not currently controlled by 5A001.f. These systems are being used by insurgents to command and control activity in conflict areas. Therefore, this revision to paragraph 5A001.f is made to expand the scope of control to include jammers for any mobile telecommunications device in order to prevent the users of the equipment from obtaining this type of jamming device, or related technology used to defeat it.

- Replacing a comma with an “and” in 5A001.f as part of the TFEI revisions to correct the grammar;

- Replacing a period with a semi-colon in 5A001.f.2. as part of the TFEI changes to correct punctuation;

- Adding the acronym (PCL) after Passive Coherent Location in 5A001.g as part of the TFEI revisions as this is a commonly used acronym; and

- Adding “or” in the note to 5A001.g as part of the TFEI revisions to correct the format.

Category 5 Part 2 “Information Security”

ECCN 5A002 (“Information security” systems, equipment and components) is amended by:

- Revising the Heading, as part of the TFEI revisions to clarify the scope of the entry;

- Adding the words “any of” in the heading of the Note to 5A002 as part of the TFEI revisions to clarify the heading;

- Adding “having any of the following” after the word “cards” in paragraph (a)(1) of the Note to 5A002 as part of the TFEI revisions to clarify the text;

- Replacing the reference to paragraph f with a reference to paragraph g in paragraph (a)(1) of the Note to 5A002 to harmonize this paragraph with the addition of a new paragraph g in the Note to 5A002;

- Adding single quotation marks around the term ‘money transactions’ in paragraph d of the Note to 5A002;

- Replacing “N.B.” with “Technical Note” after paragraph 5A002.d and replacing the double quotation marks with single quotation marks around the term ‘money transactions’ in this Technical Note as part of the TFEI changes to add clarity to the text;

- Replacing the phrase “that are not capable of end-to-end encryption” with “that are not capable of transmitting encrypted data directly to another radiotelephone or equipment (other than Radio Access Network (RAN) equipment), nor of passing encrypted data through RAN equipment (e.g., Radio Network Controller (RNC) or Base Station Controller (BSC))” in paragraph e of the Note to 5A002 at the beginning of the items paragraph in the List of Items Controlled section;

Rationale: This change in paragraph e of the Note to 5A002 clarifies that portable handheld devices (such as 3G cellular phones) providing secure Web browser, e-mail and other encryption capability across networks such as the Internet are controlled by the Wassenaar Arrangement, unless they are otherwise decontrolled as ‘mass market’ products

according to the provisions of the Cryptography Note (Note 3 of Category 5—Part 2). The technical language of this revised Note e clarifies that encrypted phone-to-server' (e.g., Internet) connections are treated the same as encrypted 'phone-to-phone' connections. Meanwhile, portable handheld devices (such as 2G cellular phones) where encryption is limited to airlink encryption to base stations (RAN equipment) remain eligible for the provisions of Category 5—Part 2 (ECCN 5A002) Note e.

h. Adding a new paragraph g to the Note to 5A002 to exclude from ECCN 5A002 certain portable or mobile radiotelephones and similar client wireless devices for civil use, as well as adding an "or" to the end of the preceding paragraph f;

Rationale: Paragraph g was added to 5A002 to make clear that mass market mobile devices that are adapted for a particular civil industry application, with features that do not involve any changes to the cryptographic functionality of the original device, are not intended to be controlled under ECCN 5A002. Examples of such customized products are CDMA/GSM/GPRS/Wi-Fi (IEEE 802.11)/Bluetooth devices for the transportation (including automotive parts and equipment) and service industries, Personal Digital Assistants (PDAs) and Pocket PCs for health care professionals, and wireless water/gas/electric utility meter readers. These customized products are not intended for retail sale to the general public, and therefore were not clearly excluded from control under previous Category 5 Part 2 text. However, the technical details of the original (non-customized) mass market platforms are not affected by such adaptations for a particular civil application operating over publicly accessible commercial networks.

i. Adding initial capitalization to "Global Navigation Satellite Systems", adding the acronym (GNSS), and replacing the abbreviation "e.g." with "i.e." in the Nota Bene (NB) after 5A002.a, as part of the TFEI revisions to clarify the entry;

j. Adding an "and" in 5A002.a.1 as part of the TFEI revisions to clarify the entry;

k. Adding an "and" and removing "characteristics" from 5A002.a.6 as part of the TFEI revisions to clarify the entry; and

l. Adding initial capitalization to "Quantum Key Distribution" in Technical Note 2 after 5A002.a.9, as part of the TFEI revisions to clarify the term in the entry.

Category 6 Sensors

ECCN 6A001 (Acoustics) is amended by:

a. Revising the Heading as part of the TFEI revisions to clarify the scope of the entry;

b. Removing a comma and adding an "and" in 6A001.a.1.a, as part of the TFEI revisions for clarity;

c. Removing the word "Being" in 6A001.a.1.a.1, 6A001.a.1.a.2, and 6A001.a.1.a.3, as part of the TFEI revisions for clarity;

d. Removing a comma and adding an "and" in 6A001.a.1.c, as part of the TFEI revisions for clarity;

e. Adding single quotes around the term 'acoustic power density' in 6A001.a.1.c.2 and the Technical Note that follows 6A001.a.1.c.2 to indicate that the term is defined within the entry, as well as correcting unit of measurement "Mw" to read "mW", as part of the TFEI revisions;

f. Adding a comma in 6A001.a.1.d, as part of the TFEI revisions;

g. Deleting the word "characteristics" from 6A001.a.2.a. as part of the TFEI revisions;

h. Removing the "or" at the end of 6A001.a.2.a.3.a, as part of the TFEI revisions;

i. Adding single quotes around the terms 'Piezoelectric polymer films', 'flexible piezoelectric composites', 'hydrophone sensitivity' in 6A001.a.2.a.3.b, 6A001.a.2.a.3.c, and 6A001.a.2.a.4, respectively, to indicate these terms are defined within the entry, as part of the TFEI revisions;

j. Removing the word "When" in 6A001.a.2.a.5, as part of the TFEI revisions for clarity;

k. Adding single quotes around the term 'hydrophone sensitivity' in Technical Note 3 that follows 6A001.a.2.a.6 to indicate that the term is defined in the entry, as part of the TFEI revisions;

l. Replacing double quotation marks around the phrase "able to be modified" with single quotations marks in the Technical Note after 6A001.a.2.b.2 as part of the TFEI revisions;

m. Replacing the double quotes with single quotes around the term "able to be modified" in the technical note after a.2.b.2, because the term is locally defined in the ECCN;

n. Adding a comma after the word "systems" in 6A001.a.2.e as part of the TFEI changes to add clarity to the text;

o. Removing and reserving paragraph 6A001.a.2.b.6 as explained in the Rationale below;

Rationale: Paragraph 6A001.a.2.b.6 is removed because the depth control of the streamer itself, combined with the

control on hydrophones that already exist in 6A001.a.2.b.2 are robust enough to cover the multiplexer module depth limit.

p. Revising "Correlation-velocity sonar log equipment" to read "Correlation-velocity and Doppler-velocity sonar log equipment", adding "as follows" to 6A001.b, and moving the parameter "at distances between the carrier and the sea bed exceeding 500 m" from 6A001.b to a new paragraph 6A001.b.1.a as explained in the Rationale below;

q. Adding two new paragraphs: 6A001.b.1 for correlation-velocity sonar log equipment, and 6A001.b.2 for doppler-velocity sonar equipment, as well as adding 2 new exclusion notes as explained in the Rationale below.

Rationale: The revision to 6A001.b and the addition of 6A001.b.1 and 6A001.b.2 were necessary because velocity sonar logs can be either correlation-velocity sonar logs (CVSL) or Doppler-velocity sonar logs (DVSL). They are being used increasingly in both commercial and military underwater applications. Although the specific techniques used by the CVSL and DVSL are different, they both determine the horizontal speed of surface vessels, underwater vehicles or swimmers in both fore and aft and athwartship (at right angles).

ECCN 6A005 (Lasers) is amended by:

a. Revising the citation "6A005.b.2, b.3, or b.4" to read "6A005.a.4, b.2, b.3, b.4" in paragraph g of the License Requirements Note to correct an oversight; and

b. Revising the text in the GBS and CIV paragraphs of the License Exception section to match the license exception eligibility in place prior to the November 5, 2007 **Federal Register** publication of the 2006 Wassenaar implementation regulation (72 FR 62524) and to correct an error.

Rationale: Dye and liquid lasers controlled by 6A005.c.3, except for a pulsed single longitudinal mode oscillator having an average output power exceeding 1W and a repetition 1 kHz if the pulse duration is less than 100 ns, were eligible for License Exception GBS and CIV prior to the 11/05/07 publication. When ECCN 6A005 was completely revised in the November 5, 2007 **Federal Register** publication these lasers were inadvertently removed from being eligible for License Exceptions GBS and CIV. This rule corrects that error.

ECCN 6A995 is amended by correcting the reference "6A995.e.1.b" to read "6A995.e.2.b" in the Note following 6A995.e.2.b.

Category 7 Navigation and Avionics

ECCN 7A002 (Gyros or angular rate sensors) is amended by replacing the term “drift rate” with “bias” in 7A002.a and 7A002.c.1 in the Items paragraph of the List of Items Controlled section, as explained below.

Rationale: The “bias” component of “drift rate” is the error term that is usually listed on the manufacturer’s specification sheets. Although “drift rate”, “stability”, and “bias” “stability” are sometimes used interchangeably, “bias” “stability” is more often used on the gyro data sheet.

ECCN 7A003 (Inertial Systems and specially designed components therefor) is amended by:

a. Adding the word “navigation” to the listed purposes: attitude, guidance or control in 7A003.a and 7A003.b for clarification;

b. Adding double quotation marks around “Circular Error Probable” and “CEP” in 7A003.a.1 and 7A003.b as part of the TFEI changes to clarify the text;

c. Removing the Technical Note 2 at the end of 7A003, and adding the definition for “Circular Error Probable (“CEP”)” to the definition section 772.1 of the EAR, because this term is used in both 7A003 and 7A008;

d. Revising certain terms used in 7A003.c and 7A003.c.1 to more commonly used terms, because removed terms are not usually specified on data sheets;

e. Changing the “e” in “equipment” and the “h” in heading from upper case to lower case and deleting the word “characteristics” in 7A003.c. as part of the TFEI revisions to clarify the text;

f. Changing “RMS” and “Heading” from upper case to lower case in 7A003.c.1. as part of the TFEI revisions to clarify the text;

g. Replacing the period with a semi-colon in 7A003.a.2, b., and c.2, as part of the TFEI revisions to correct the punctuation;

h. Deleting the comma after “msec” in 7A003.c.2. as part of the TFEI changes to clarify the text;

i. Revising the outline format from numeric to alphabetic and adding the words “all of” in Note 1.a, as part of the TFEI revisions for clarity;

j. Replacing “half”, “one and a half” and “three” with numeric notation in Note 1.a. as part of the TFEI revision for clarity;

k. Capitalizing “Power Spectral Density” to signify the acronym “PSD” in Note 1.a.1. as part of the TFEI revision to clarify the text;

l. Replacing “A roll and yaw rate” with “An angular rate capability about one or more axes” in Note 1.b in Note

1 to include pitch, as well as roll and yaw, and to clarify that angular rate capability is the parameter of concern; and

m. Replacing references to “1” and “2” with “a” and “b” in new sub-entry “c” of Note 1 to conform with the changed outline format as part of the TFEI revisions.

ECCN 7A008 (Underwater sonar navigation systems) is amended:

a. Deleting the comma and adding “and” after “source” in the heading as part of the TFEI changes to clarify the text;

b. Adding double quotes around the term “Circular Error Probable (“CEP”)” in the heading, because this rule adds this term to section 772.1 of the EAR;

c. Revising “Correlation-velocity sonar log equipment” to read “Correlation-velocity and Doppler-velocity sonar log equipment” in the Nota Bene to correspond with the revision in 6A001.b.1.a.

Category 9 Propulsion Systems, Space Vehicles and Related Equipment

ECCN 9A012 (Non-military “unmanned aerial vehicles,” (“UAVs”), associated systems, equipment and components) is amended by:

a. Adding a comma to the Heading as part of the TFEI revisions to correct the punctuation;

b. Replacing a period with a semi-colon in 9A012.a.2 and 9A012.b.3, as part of the TFEI revisions to correct the punctuation;

c. Adding a comma after “components” in 9A012.b. as part of the TFEI revisions to correct the punctuation; and

d. Adding a new paragraph 9A012.b.4 for “Air breathing reciprocating or rotary internal combustion type engines * * *” as explained in the Rationale below.

Rationale: Paragraph 9A012.b.4 is added because commercial and military UAVs are increasingly used in a wider range of application types and in steadily increasing numbers. As a result, UAV engine designs have also broadened to include reciprocating systems. Modern reciprocating engine technology including use of turbochargers can enable UAVs to reach altitudes exceeding 60,000 feet.

ECCN 9E003 (Other “technology”) is amended by:

a. Removing a comma in the Heading, as part of the TFEI revisions to correct the punctuation;

b. Adding a comma and an “and” in 9E003.a.1, as part of the TFEI revisions for clarity;

c. Replacing a period with a semi-colon in 9E003.a.3.c, as part of the TFEI revisions to correct the punctuation;

d. Adding “total (stagnation)” and “at sea-level static take-off (ISA)” in a ‘steady state mode’ of engine operation” to 9E003.a.4 and 9E003.a.5 for

clarification, as well as adding a Technical Note to define the term ‘steady state mode’ within the ECCN;

e. Adding a comma in 9E003.b.2 as part of the TFEI revisions to correct the punctuation;

f. Adding the term “Electro-Chemical Machining” and parentheticals around the acronym “ECM”, and adding the term “Electrical Discharge Machines” and parentheticals around the acronym “EDM” in 9E003.c, as part of the TFEI revisions to clarify the entry and the related term;

g. Deleting the term “sets of characteristics” and adding single quotes around the term ‘Incidence angles’ in 9E003.c.1.c and 9E003.c.2.c, as part of the TFEI revisions, because it is defined within the entry’s Technical Note that follows 9E003.c.2.c;

h. Removing the article “A” and adding single quotes around the term ‘Box volume’ in 9E003.e.1 and 9E003.e.3, as part of the TFEI revisions for clarity and to indicate the term is defined within the entry;

i. Adding single quotes around the term ‘Box volume’, and replacing a colon with the word “is” in the Technical Note that follows 9E003.e.3, as part of the TFEI revisions for clarity and to indicate that ‘Box volume’ is defined within the entry;

j. Adding the words “any of” to the width and height statements in the Technical Note that follows 9E003.e.3, as part of the TFEI revisions for clarity;

k. Adding a comma and the words “as follows” in 9E003.f, as part of the TFEI revisions for clarity;

l. Adding the word “and” in 9E003.f.2, as part of the TFEI revisions for clarity;

m. Deleting a comma and removing the article “A” in 9E003.f.2.b, as part of the TFEI revisions for clarity;

n. Replacing a comma with an “and” and replacing the word “both” with “all” in 9E003.f.3, as part of the TFEI revisions for clarity;

o. Moving the words “Specially designed” from in front of the phrase “electronic control features” to behind this phrase in 9E003.f.3.b, as part of the TFEI revisions to clarify the scope of the control;

p. Adding single quotes around the term ‘high output diesel engines’, replacing a comma with an “and”, and replacing a period with a semi-colon in 9E003.g, as part of the TFEI revisions to indicate the term is defined in the entry and to correct the punctuation; and

q. Adding a Technical Note after 9E003.g that defines 'high output diesel engines' within the entry to conform to the Wassenaar Dual-Use List.

Part 740 "License Exceptions"

Supplement No. 1 to Section 740.11 "License Exception GOV" is amended by making minor editorial revisions, such as removing text and inserting "consisting of" and "controlled by" as clarifying text under paragraph (a)(1)(i), that conform to the Wassenaar Arrangement edits on the Very Sensitive List.

Definitions in Part 772

Section 772.1 is amended by:

a. Revising the definition of the term "Bias" (accelerometer), as set forth below;

b. Adding in alphabetical order the term "Bias" (gyro), as set forth below;

Rationale: The "bias" component of "drift rate" is the error term that is usually listed on the manufacturer's specification sheets. Although "drift rate" "stability" and "bias" "stability" are sometimes used interchangeably, "bias" "stability" is more often used on the gyro data sheet. "Bias" "stability" is a more appropriate control parameter for gyros.

c. Adding in alphabetical order the term "Circular Error Probable" ("CEP"), because this term is found in both 7A003 and 7A008, as set forth below;

d. Adding after "compound rotary table" the new term "III/V compounds", as set forth below; and

e. Removing the term "Drift rate" (gyro), because this term is replaced by the new "bias" (gyro) definition, see rationale above.

Although the Export Administration Act expired on August 20, 2001, the President, through Executive Order 13222 of August 17, 2001, 3 CFR, 2001 Comp., p. 783 (2002), as extended by the Notice of July 23, 2008, 73 FR 43603 (July 25, 2008), has continued the Export Administration Regulations in effect under the International Emergency Economic Powers Act.

Saving Clause

Shipments of items removed from license exception eligibility or eligibility for export or reexport without a license as a result of this regulatory action that were on dock for loading, on lighter, laden aboard an exporting or reexporting carrier, or en route aboard a carrier to a port of export or reexport, on October 14, 2008, pursuant to actual orders for export or reexport to a foreign destination, may proceed to that destination under the previous license exception eligibility or without a license

so long as they have been exported from the United States or reexported before December 15, 2008. Any such items not actually exported or reexported before midnight, on December 15, 2008, require a license in accordance with this regulation.

Rulemaking Requirements

1. This final rule has been determined to be not significant for purposes of Executive Order 12866.

2. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) (PRA), unless that collection of information displays a currently valid Office of Management and Budget (OMB) Control Number. This rule involves two collections of information subject to the PRA. One of the collections has been approved by OMB under control number 0694 0088, "Multi Purpose Application," and carries a burden hour estimate of 58 minutes for a manual or electronic submission. The other of the collections has been approved by OMB under control number 0694 0106, "Reporting and Recordkeeping Requirements under the Wassenaar Arrangement," and carries a burden hour estimate of 21 minutes for a manual or electronic submission. Send comments regarding these burden estimates or any other aspect of these collections of information, including suggestions for reducing the burden, to Jasmeet Sehra, OMB Desk Officer, by e-mail at jsehra@omb.eop.gov or by fax to (202) 395-7285; and to the Office of Administration, Bureau of Industry and Security, Department of Commerce, 14th and Pennsylvania Avenue, NW., Room 6622, Washington, DC 20230.

3. This rule does not contain policies with Federalism implications as that term is defined under Executive Order 13132.

4. This rule is exempt for the provisions of the Administrative Procedure Act (5 U.S.C. 553) requiring notice of proposed rulemaking and opportunity for public comment pursuant to 5 U.S.C. 553(a)(1) because this regulation involves a military and foreign affairs function of the United States. No other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this final rule. Accordingly, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable, so no regulatory flexibility analysis is required

and none has been prepared. Therefore, this regulation is issued in final form. Although there is no formal comment period, public comments on this regulation are welcome on a continuing basis. Comments should be submitted to the Regulatory Policy Division, Bureau of Industry and Security, Department of Commerce, 14th & Pennsylvania Ave., NW., Room 2705, Washington, DC 20230.

List of Subjects

15 CFR Part 740

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

15 CFR Part 772

Exports.

15 CFR Part 774

Exports, Reporting and recordkeeping requirements.

■ Accordingly, Parts 740, 772 and 774 of the Export Administration Regulations (15 CFR Parts 730-774) are amended as follows:

PART 740—[AMENDED]

■ 1. The authority citations for Part 740 continue to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 22 U.S.C. 7201 *et seq.*; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of July 23, 2008, 73 FR 43603 (July 25, 2008).

■ 2. Supplement No. 1 to § 740.11 is amended by revising paragraph (a)(1)(i) to read as follows:

§ 740.11 Governments, international organization, and international inspections under the chemical weapons convention (GOV).

* * * * *

Supplement No. 1 to § 740.11— Additional Restrictions on use of License Exception GOV

(a) * * *

(1) * * *

(i) "Composite" structures or laminates controlled by 1A002.a, consisting of an organic "matrix" and materials controlled by 1C010.c or 1C010.d; and

* * * * *

PART 772—[AMENDED]

■ 3. The authority citations for Part 772 continue to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of July 23, 2008, 73 FR 43603 (July 25, 2008).

- 4. Section 772.1 is amended by:
 - a. Revising the definition of the term “Bias (accelerometer)”, as set forth below;
 - b. Adding in alphabetical order the term “Bias (gyro)”, as set forth below;
 - c. Adding in alphabetical order the term “Circular Error Probable” (“CEP”), as set forth below;
 - d. Adding after “compound rotary table” the new term “III/V compounds”, as set forth below; and
 - e. Removing the term “Drift rate (gyro)”.

§ 772.1 Definitions of Terms as Used in the Export Administration Regulations (EAR).

* * * * *

“Bias”. (accelerometer) (Cat 7) The average over a specified time of accelerometer output measured at specified operating conditions that has no correlation with input acceleration or rotation. “Bias” is expressed in [m/s², g]. (IEEE Std 528–2001) (Micro g equals 1 × 10^{–6} g).

“Bias”. (gyro) (Cat 7) The average over a specified time of gyro output measured at specified operating conditions that has no correlation with input rotation or acceleration. “Bias” is typically expressed in degrees per hour (deg/hr). (IEEE Std 528–2001).

* * * * *

“Circular Error Probable” (“CEP”). (Cat 7) In a circular normal distribution, the radius of the circle containing 50 percent of the individual measurements being made, or the radius of the circle within which there is a 50 percent probability of being located.

* * * * *

“III/V compounds”. (Cat 3 and 6) Polycrystalline or binary or complex monocrystalline products consisting of elements of groups IIIA and VA of Mendeleyev’s periodic classification table (e.g., gallium arsenide, gallium-aluminum arsenide, indium phosphide).

* * * * *

PART 774—[AMENDED]

- 5. The authority citations for Part 774 continue to read as follows:

Authority: 50 U.S.C. app. 2401 *et seq.*; 50 U.S.C. 1701 *et seq.*; 10 U.S.C. 7420; 10 U.S.C. 7430(e); 22 U.S.C. 287c, 22 U.S.C. 3201 *et seq.*; 22 U.S.C. 6004; 30 U.S.C. 185(s), 185(u); 42 U.S.C. 2139a; 42 U.S.C. 6212; 43 U.S.C. 1354; 46 U.S.C. app. 466c; 50 U.S.C. app. 5; 22 U.S.C. 7201 *et seq.*; 22 U.S.C. 7210; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of July 23, 2008, 73 FR 43603 (July 25, 2008).

Supplement No. 1 to Part 774—[Amended]

- 6. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 1 Materials, Chemicals, Microorganisms, and Toxins, Export Control Classification Number (ECCN) 1A004 is amended by revising the Related Definitions and Items paragraphs in the List of Items Controlled section, to read as follows:

1A004 Protective and detection equipment and components not specially designed for military use as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

Unit: * * *
Related Controls: * * *

Related Definitions: (1) “adapted for use in war” means: Any modification or selection (such as altering purity, shelf life, virulence, dissemination characteristics, or resistance to UV radiation) designed to increase the effectiveness in producing casualties in humans or animals, degrading equipment or damaging crops or the environment. (2) “Riot control agents” are substances which, under the expected conditions of use for riot control purposes, produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure. (Tear gases are a subset of “riot control agents”.)

Items:
a. Gas masks, filter canisters and decontamination equipment therefor, designed or modified for defense against any of the following, and specially designed components therefor:

- 1. Biological agents “adapted for use in war”;
- 2. Radioactive materials “adapted for use in war”;
- 3. Chemical warfare (CW) agents; or
- 4. “Riot control agents”, as follows:

a. Bromobenzeneacetonitrile, (Bromobenzyl cyanide) (CA) (CAS 5798–79–8);

b. [(2-chlorophenyl) methylene] propanedinitrile, (o-Chlorobenzylidenemalononitrile) (CS) (CAS 2698–41–1);

c. 2-Chloro-1-phenylethanone, Phenylacetyl chloride (-chloroacetophenone) (CN) (CAS 532–27–4);

d. Dibenz-(b,f)-1,4-oxazepine, (CR) (CAS 257–07–8);

e. 10-Chloro-5,10-dihydrophenarsazine, (Phenarsazine chloride), (Adamsite), (DM) (CAS 578–94–9);

f. N-Nonanoylmorpholine, (MPA) (CAS 5299–64–9);

b. Protective suits, gloves and shoes, specially designed or modified for defense against any of the following:

- 1. Biological agents “adapted for use in war”;
- 2. Radioactive materials “adapted for use in war”;
- 3. Chemical warfare (CW) agents;
- c. Nuclear, biological and chemical (NBC) detection systems, specially designed or

modified for detection or identification of any of the following, and specially designed components therefor:

- 1. Biological agents “adapted for use in war”;
- 2. Radioactive materials “adapted for use in war”;
- 3. Chemical warfare (CW) agents.

Note: 1A004 does not control:

- a. Personal radiation monitoring dosimeters;
- b. Equipment limited by design or function to protect against hazards specific to civil industries, such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or to the food industry.

Technical Notes

1. ECCN 1A004 includes equipment and components that have been identified, successfully tested to national standards or otherwise proven effective, for the detection of or defense against radioactive materials “adapted for use in war”, biological agents “adapted for use in war”, chemical warfare agents, “simulants” or “riot control agents”, even if such equipment or components are used in civil industries such as mining, quarrying, agriculture, pharmaceuticals, medical, veterinary, environmental, waste management, or the food industry.

2. “Simulant”: A substance or material that is used in place of toxic agent (chemical or biological) in training, research, testing or evaluation.

- 7. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 1 Materials, Chemicals, Microorganisms, and Toxins, Export Control Classification Number (ECCN) 1A006 is added after 1A005, to read as follows:

1A006 Equipment, specially designed or modified for the disposal of improvised explosive devices, as follows (see List of Items Controlled), and specially designed components and accessories therefor.

License Requirements

Reason for Control: NS, AT

Control(s)	Country chart
NS applies to entire entry	NS Column 2.
AT applies to entire entry	AT Column 1.

License Requirement Note: 1A006 does not apply to equipment when accompanying its operator.

License Exceptions

LVS: N/A
GBS: N/A
CIV: N/A

List of Items Controlled

Unit: \$ value
Related Controls: Equipment specially designed for military use for the disposal of improvised explosive devices is subject to the export licensing jurisdiction of the Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121, Category IV).
Related Definitions: ‘Disruptors’—Devices specially designed for the purpose of

preventing the operation of an explosive device by projecting a liquid, solid or frangible projectile.

Items:

- a. Remotely operated vehicles;
- b. 'Disruptors'.

■ 8. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 1 Materials, Chemicals, Microorganisms, and Toxins, Export Control Classification Number (ECCN) 1A007 is added after 1A006, to read as follows:

1A007 Equipment and devices, specially designed to initiate charges and devices containing energetic materials, by electrical means, as follows (see List of Items Controlled).

License Requirements

Reason for Control: NS, NP, AT

Control(s)	Country chart
NS applies to entire entry NP applies to 1A007.b, as well as 1A007.a when the detonator firing set meets or exceeds the parameters of 3A229.	NS Column 2. NP Column 1.
AT applies to entire entry	AT Column 1.

License Requirement Note: 1A007 does not apply to equipment when accompanying its operator.

License Exceptions

LVS: N/A
GBS: N/A
CIV: N/A

List of Items Controlled

Unit: \$ value

Related Controls: High explosives and related equipment specially designed for military use is subject to the export licensing jurisdiction of the Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121). This entry does not control detonators using only primary explosives, such as lead azide. See also 3A229. See 1E001 for "development" and "production" technology controls, and 1E201 for "use" technology controls.

Related Definitions: N/A

Items:

a. Explosive detonator firing sets designed to drive explosive detonators specified by 1A007.b;

b. Electrically driven explosive detonators as follows:

- b.1. Exploding bridge (EB);
- b.2. Exploding bridge wire (EBW);
- b.3. Slapper;
- b.4. Exploding foil initiators (EFI).

Technical Notes

1. The word *initiator* or *igniter* is sometimes used in place of the word *detonator*.

2. For the purpose of 1A007.b the detonators of concern all utilize a small electrical conductor (bridge, bridge wire, or foil) that explosively vaporizes when a fast, high-current electrical pulse is passed through it. In nonslapper types, the exploding conductor starts a chemical

detonation in a contacting high explosive material such as PETN (pentaerythritoltetranitrate). In slapper detonators, the explosive vaporization of the electrical conductor drives a flyer or slapper across a gap, and the impact of the slapper on an explosive starts a chemical detonation. The slapper in some designs is driven by magnetic force. The term exploding foil detonator may refer to either an EB or a slapper-type detonator. Also, the word initiator is sometimes used in place of the word detonator.

■ 9. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 1 Materials, Chemicals, Microorganisms, and Toxins, Export Control Classification Number (ECCN) 1E001 is amended by revising the Heading and the NS Column 1 and the NP paragraph of the License Requirements section, to read as follows:

1E001 "Technology" according to the General Technology Note for the "development" or "production" of items controlled by 1A001.b, 1A001.c, 1A002, 1A003, 1A004, 1A005, 1A006, 1A007, 1A101, 1B (except 1B999), or 1C (except 1C355, 1C980 to 1C984, 1C988, 1C990, 1C991, 1C992, 1C995 to 1C999).

License Requirements

*	*	*	*	*
Control(s)			Country chart	
NS applies to “technology” for items controlled by 1A001.b and .c, 1A002, 1A003, 1A005, 1A006, 1A007, 1B001 to 1B003, 1B018, 1C001 to 1C011, or 1C018.			NS Column 1.	
*	*	*	*	*
NP applies to “technology” for items controlled by 1A002, 1A007, 1B001, 1B101, 1B201, 1B225 to 1B233, 1C002, 1C010, 1C116, 1C202, 1C210, 1C216, 1C225 to 1C240 for NP reasons.			NP Column 1.	
*	*	*	*	*

■ 10. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 1 Materials, Chemicals, Microorganisms, and Toxins, Export Control Classification Number (ECCN) 1E201 is amended by revising the Heading and the NP paragraph of the License Requirements section, to read as follows:

1E201 "Technology" according to the General Technology Note for the "use" of items controlled by 1A002, 1A007, 1A202, 1A225 to 1A227, 1B201, 1B225 to 1B232, 1B233.b, 1C002.a.2.c or .d, 1C010.a, 1C010.b, 1C010.e.1, 1C202, 1C210, 1C216, 1C225 to 1C240 or 1D201.

License Requirements

*	*	*	*	*
Control(s)			Country Chart	
NP applies to entire entry, for items controlled for NP reasons.			NP Column 1.	
*	*	*	*	*

■ 11. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Group B Test, Inspection and Production Equipment, technical notes for 2B001 to 2B009 are amended by revising Notes 5 and 6 to read as follows:

B. Test, Inspection and Production Equipment

Technical Notes for 2B001 to 2B009:

* * * * *

5. The positioning accuracy of "numerically controlled" machine tools is to be determined and presented in accordance with ISO 230/2 (1988).

6. 'Stated positioning accuracy' levels derived from measurements made according to ISO 230/2 (1988) may be used for each specific machine model as an alternative to individual machine tests. 'Stated positioning accuracy' means the accuracy value provided to BIS as representative of the accuracy of a specific machine model.

Determination of 'Stated Positioning Accuracy'

a. Select five machines of a model to be evaluated;

b. Measure the linear axis accuracies according to ISO 230/2 (1988);

c. Determine the A-values for each axis of each machine. The method of calculating the A-value is described in the ISO standard;

d. Determine the mean value of the A-value of each axis. This mean value A becomes the stated value of each axis for the model (Ax Ay * * *);

e. Since the Category 2 list refers to each linear axis there will be as many stated values as there are linear axes;

f. If any axis of a machine model not controlled by 2B001.a. to 2B001.c. has a stated accuracy A of 6 microns for grinding machines and 8 microns for milling and turning machines or better, the builder should be required to reaffirm the accuracy level once every eighteen months.

* * * * *

■ 12. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Export Control Classification Number (ECCN) 2B001 is amended by revising the Heading, and the Related Controls and Items

paragraph in the List of Items Controlled section to read as follows:

2B001 Machine tools and any combination thereof, for removing (or cutting) metals, ceramics or “composites”, which, according to the manufacturer’s technical specifications, can be equipped with electronic devices for “numerical control”; and specially designed components as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

Unit: * * *
Related Controls: (1) See ECCN 2B002 for optical finishing machines. (2) See ECCNs 2D001 and 2D002 for software for items controlled under this entry. (3) See ECCNs 2E001 (“development”), 2E002 (“production”), and 2E201 (“use”) for technology for items controlled under this entry. (4) Also see ECCNs 2B201, 2B290, and 2B991.

Related Definitions: * * *
Items:
Note 1: 2B001 does not control special purpose machine tools limited to the manufacture of gears. For such machines, see 2B003.

Note 2: 2B001 does not control special purpose machine tools limited to the manufacture of any of the following:
a. Crank shafts or cam shafts;
b. Tools or cutters;
c. Extruder worms; or
d. Engraved or faceted jewellery parts.

Note 3: A machine tool having at least two of the three turning, milling or grinding capabilities (e.g., a turning machine with milling capability), must be evaluated against each applicable entry 2B001.a., b. or c.

a. Machine tools for turning having all of the following:
a.1. Positioning accuracy with “all compensations available” of less (better) than 6 µm along any linear axis; and
a.2. Two or more axes which can be coordinated simultaneously for “contouring control”;

Note: 2B001.a does not control turning machines specially designed for producing contact lenses, having all of the following:
a. Machine controller limited to using ophthalmic based software for part programming data input; and
b. No vacuum chucking.

b. Machine tools for milling having any of the following:
b.1. Having all of the following:
b.1.a. Positioning accuracy with “all compensations available” of less (better) than 6 µm along any linear axis; and
b.1.b. Three linear axes plus one rotary axis which can be coordinated simultaneously for “contouring control”;
b.2. Five or more axes which can be coordinated simultaneously for “contouring control”;
b.3. A positioning accuracy for jig boring machines, with “all compensations available”, of less (better) than 4 µm along any linear axis; or
b.4. Fly cutting machines having all of the following:

b.4.a. Spindle “run-out” and “camming” less (better) than 0.0004 mm TIR; and
b.4.b. Angular deviation of slide movement (yaw, pitch and roll) less (better) than 2 seconds of arc, TIR, over 300 mm of travel.
c. Machine tools for grinding having any of the following:
c.1. Having all of the following:
c.1.a. Positioning accuracy with “all compensations available” of less (better) than 4 µm along any linear axis; and
c.1.b. Three or more axes which can be coordinated simultaneously for “contouring control”; or
c.2. Five or more axes which can be coordinated simultaneously for “contouring control”;

Notes: 2B001.c does not control grinding machines, as follows:
a. Cylindrical external, internal, and external-internal grinding machines, having all of the following:
1. Limited to cylindrical grinding; and
2. Limited to a maximum workpiece capacity of 150 mm outside diameter or length.
b. Machines designed specifically as jig grinders that do not have a z-axis or a w-axis, with a positioning accuracy with “all compensations available” less (better) than 4 µm.
c. Surface grinders.

d. Electrical discharge machines (EDM) of the non-wire type which have two or more rotary axes which can be coordinated simultaneously for “contouring control”;
e. Machine tools for removing metals, ceramics or “composites”, having all of the following:
e.1. Removing material by means of any of the following:
e.1.a. Water or other liquid jets, including those employing abrasive additives;
e.1.b. Electron beam; or
e.1.c. “Laser” beam; and
e.2. Having two or more rotary axes and all of the following:
e.2.a. Can be coordinated simultaneously for “contouring control”; and
e.2.b. A positioning accuracy of less (better) than 0.003°;
f. Deep-hole-drilling machines and turning machines modified for deep-hole-drilling, having a maximum depth-of-bore capability exceeding 5 m and specially designed components therefor.

■ 13. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Export Control Classification Number (ECCN) 2B002 is amended by revising the Heading, and the Related Definitions and Items paragraphs in the List of Items Controlled section to read as follows:

2B002 Numerically controlled optical finishing machine tools equipped for selective material removal to produce non-spherical optical surfaces having all of the following characteristics (See List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Related Definitions: For the purposes of 2B002, ‘MRF’ is a material removal process using an abrasive magnetic fluid whose viscosity is controlled by a magnetic field. ‘ERF’ is a removal process using an abrasive fluid whose viscosity is controlled by an electric field. ‘Energetic particle beam finishing’ uses Reactive Atom Plasmas (RAP) or ion-beams to selectively remove material. ‘Inflatable membrane tool finishing’ is a process that uses a pressurized membrane that deforms to contact the workpiece over a small area. ‘Fluid jet finishing’ makes use of a fluid stream for material removal.

Items:
a. Finishing the form to less (better) than 1.0 µm;
b. Finishing to a roughness less (better) than 100 nm rms;
c. Four or more axes which can be coordinated simultaneously for “contouring control”; and
d. Using any of the following processes:
d.1. ‘Magnetorheological finishing (MRF)’;
d.2. ‘Electrorheological finishing (ERF)’;
d.3. ‘Energetic particle beam finishing’;
d.4. ‘Inflatable membrane tool finishing’; or
d.5. ‘Fluid jet finishing’.

■ 14. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Export Control Classification Number (ECCN) 2B006 is amended by revising the NP paragraph in the License Requirements section and the Items paragraph of the List of Items Controlled section to read as follows:

2B006 Dimensional inspection or measuring systems, equipment, and “electronic assemblies”, as follows (see List of Items Controlled).

License Requirements

* * * * *

Control(s)					Country Chart
*	*	*	*	*	*
NP applies to 2B006.a and .b, except 2B006.b.1.d.					NP Column 1.

Note: NP applies to measuring systems in 2B006.b.1.c that maintain, for at least 12 hours, over a temperature range of ±1 K around a standard temperature and at a standard pressure, all of the following: a “resolution” over their full scale of 0.1 µm or less (better); and a “measurement uncertainty” equal to or less (better) than (0.2 + L/2,000) µm (L is the measured length in mm).

* * * * *

List of Items Controlled

* * * * *

Items:
a. Computer controlled or “numerically controlled” co-ordinate measuring machines (CMM), having a three dimensional length (volumetric) maximum permissible error of indication (MPEE) at any point within the operating range of the machine (i.e., within the length of axes) equal to or less (better)

than $(1.7 + L/1,000)$ μm (L is the measured length in mm) tested according to ISO 10360-2 (2001);

b. Linear and angular displacement measuring instruments, as follows:

b.1. 'Linear displacement' measuring instruments having any of the following:

Technical Note: For the purpose of 2B006.b.1 'linear displacement' means the change of distance between the measuring probe and the measured object.

b.1.a. Non-contact type measuring systems with a "resolution" equal to or less (better) than 0.2 μm within a measuring range up to 0.2 mm;

b.1.b. Linear voltage differential transformer systems having all of the following:

b.1.b.1. "Linearity" equal to or less (better) than 0.1% within a measuring range up to 5 mm; and

b.1.b.2. Drift equal to or less (better) than 0.1% per day at a standard ambient test room temperature ± 1 K;

b.1.c. Measuring systems having all of the following:

b.1.c.1. Containing a "laser"; and

b.1.c.2. Maintaining, for at least 12 hours, at a temperature of 20 ± 1 °C, all of the following:

b.1.c.2.a. A "resolution" over their full scale of 0.1 μm or less (better); and

b.1.c.2.b. Capable of achieving a "measurement uncertainty", when compensated for the refractive index of air, equal to or less (better) than $(0.2 + L/2,000)$ μm (L is the measured length in mm); or

b.1.d. "Electronic assemblies" specially designed to provide feedback capability in systems controlled by 2B006.b.1.c;

Note: 2B006.b.1 does not control measuring interferometer systems, with an automatic control system that is designed to use no feedback techniques, containing a "laser" to measure slide movement errors of machine-tools, dimensional inspection machines or similar equipment.

b.2. Angular displacement measuring instruments having an "angular position deviation" equal to or less (better) than 0.00025°;

Note: 2B006.b.2 does not control optical instruments, such as autocollimators, using collimated light (e.g., laser light) to detect angular displacement of a mirror.

c. Equipment for measuring surface irregularities, by measuring optical scatter as a function of angle, with a sensitivity of 0.5 nm or less (better).

Note: Machine tools, which can be used as measuring machines, are controlled if they meet or exceed the criteria specified for the machine tool function or the measuring machine function.

■ 15. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Export Control Classification Number (ECCN) 2B007 is amended by revising the NP paragraph in the License Requirements section and the Items paragraph of the List of Items Controlled section to read as follows:

2B007 "Robots" having any of the following characteristics described in the List of Items Controlled and specially designed controllers and "end-effectors" therefor.

License Requirements

* * * * *

Control(s)	Country Chart
NP applies to equipment that meets or exceeds the criteria in ECCNs 2B207.	NP Column 1.
* * * *	

* * * * *

List of Items Controlled

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Items:

a. Capable in real time of full three-dimensional image processing or full three-dimensional 'scene analysis' to generate or modify "programs" or to generate or modify numerical program data;

Technical Note: The 'scene analysis' limitation does not include approximation of the third dimension by viewing at a given angle, or limited grey scale interpretation for the perception of depth or texture for the approved tasks ($2\frac{1}{2}$ D).

b. Specially designed to comply with national safety standards applicable to potentially explosive munitions environments;

Note: 2B007.b does not apply to "robots" specially designed for paint-spraying booths.

c. Specially designed or rated as radiation-hardened to withstand a total radiation dose greater than 5×10^3 Gy (silicon) without operational degradation; or

Technical Note: The term Gy (silicon) refers to the energy in Joules per kilogram absorbed by an unshielded silicon sample when exposed to ionizing radiation.

d. Specially designed to operate at altitudes exceeding 30,000m.

■ 16. Supplement No. 1 to Part 774 (the Commerce Control List), Category 2 Materials Processing, Export Control Classification Number (ECCN) 2B008 is amended by revising the Items paragraph in the List of Items Controlled section to read as follows:

2B008 Assemblies or units, specially designed for machine tools, or dimensional inspection or measuring systems and equipment, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Items:

a. Linear position feedback units (e.g., inductive type devices, graduated scales, infrared systems or "laser" systems) having an overall "accuracy" less (better) than $(800 + (600 \times L \times 10^{-3}))$ nm (L equals the effective length in mm);

N.B.: For "laser" systems see also 2B006.b.1.c and d.

b. Rotary position feedback units (e.g., inductive type devices, graduated scales, infrared systems or "laser" systems) having an "accuracy" less (better) than 0.00025°;

N.B.: For "laser" systems see also 2B006.b.2.

c. "Compound rotary tables" and "tilting spindles", capable of upgrading, according to the manufacturer's specifications, machine tools to or above the levels controlled by 2B001 to 2B009.

■ 17. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3A001 is amended by:

■ a. Revising the Heading;

■ b. Revising the GBS paragraph of the License Exceptions section;

■ c. Revising the Related Controls paragraph of the List of Items Controlled section;

■ d. Removing the second sentence of the "Related Definitions" paragraph of the List of Items Controlled section; and

■ e. Revising the Items paragraph in the List of Items Controlled section, to read as follows:

3A001 Electronic components and specially designed components therefor, as follows (see List of Items Controlled).

* * * * *

License Exceptions

LVS: * * *

GBS: Yes for 3A001.a.1.b, a.2 to a.12 (except a.5.a when controlled for MT), b.2, b.8 (except for TWTAs exceeding 18 GHz), b.9., and .g.

CIV: * * *

List of Items Controlled

* * * * *

Unit: Number.* * *

Related Controls: (1) The following commodities are under the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121) when "space qualified" and operating at frequencies higher than 31.8 GHz: helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; and derivatives thereof; (2) The following commodities are also under the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121): (a) "Space qualified" solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) assemblies, solar arrays and/or solar panels, with a minimum average efficiency of 31% or greater measured at an operating temperature of 301 K (28 °C) under simulated 'AM0' illumination with an irradiance of 1,367 Watts per square meter (W/m^2), and associated solar concentrators, power conditioners and/or controllers, bearing and power transfer assemblies, and deployment

hardware/systems; (b) Radiation-hardened microelectronic circuits controlled by Category XV (d) of the United States Munitions List (USML); and (c) All specifically designed or modified systems or subsystems, components, parts, accessories, attachments, and associated equipment controlled by Category XV (e) of the USML. See also 3A101, 3A201, and 3A991.

* * * * *

Items:

a. General purpose integrated circuits, as follows:

Note 1: *The control status of wafers (finished or unfinished), in which the function has been determined, is to be evaluated against the parameters of 3A001.a.*

Note 2: *Integrated circuits include the following types:*

“Monolithic integrated circuits”;
“Hybrid integrated circuits”;
“Multichip integrated circuits”;
“Film type integrated circuits”, including silicon-on-sapphire integrated circuits;
“Optical integrated circuits”.

a.1. Integrated circuits designed or rated as radiation hardened to withstand any of the following:

- a.1.a. A total dose of 5×10^3 Gy (Si), or higher;
- a.1.b. A dose rate upset of 5×10^6 Gy (Si)/s, or higher; or
- a.1.c. A fluence (integrated flux) of neutrons (1 MeV equivalent) of 5×10^{13} n/cm² or higher on silicon, or its equivalent for other materials;

Note: *3A001.a.1.c does not apply to Metal Insulator Semiconductors (MIS).*

a.2. “Microprocessor microcircuits”, “microcomputer microcircuits”, microcontroller microcircuits, storage integrated circuits manufactured from a compound semiconductor, analog-to-digital converters, digital-to-analog converters, electro-optical or “optical integrated circuits” designed for “signal processing”, field programmable logic devices, custom integrated circuits for which either the function is unknown or the control status of the equipment in which the integrated circuit will be used is unknown, Fast Fourier Transform (FFT) processors, electrical erasable programmable read-only memories (EEPROMs), flash memories or static random-access memories (SRAMs), having any of the following:

- a.2.a. Rated for operation at an ambient temperature above 398 K (125 °C);
- a.2.b. Rated for operation at an ambient temperature below 218 K (–55 °C); or
- a.2.c. Rated for operation over the entire ambient temperature range from 218 K (–55 °C) to 398 K (125 °C);

Note: *3A001.a.2 does not apply to integrated circuits for civil automobile or railway train applications.*

a.3. “Microprocessor microcircuits”, “microcomputer microcircuits” and microcontroller microcircuits, manufactured from a compound semiconductor and operating at a clock frequency exceeding 40 MHz;

Note: *3A001.a.3 includes digital signal processors, digital array processors and digital coprocessors.*

a.4. Storage integrated circuits manufactured from a compound semiconductor;

a.5. Analog-to-digital and digital-to-analog converter integrated circuits, as follows:

a.5.a. Analog-to-digital converters having any of the following:

- a.5.a.1. A resolution of 8 bit or more, but less than 10 bit, with an output rate greater than 500 million words per second;
- a.5.a.2. A resolution of 10 bit or more, but less than 12 bit, with an output rate greater than 200 million words per second;
- a.5.a.3. A resolution of 12 bit with an output rate greater than 105 million words per second;
- a.5.a.4. A resolution of more than 12 bit but equal to or less than 14 bit with an output rate greater than 10 million words per second; or
- a.5.a.5. A resolution of more than 14 bit with an output rate greater than 2.5 million words per second;

a.5.b. Digital-to-analog converters with a resolution of 12 bit or more and a “settling time” of less than 10 ns;

Technical Notes: 1. *A resolution of n bit corresponds to a quantization of 2ⁿ levels.*

2. *The number of bits in the output word is equal to the resolution of the analog-to-digital converter.*

3. *The output rate is the maximum output rate of the converter, regardless of architecture or oversampling. Vendors may also refer to the output rate as sampling rate, conversion rate or throughput rate. It is often specified in megahertz (MHz) or mega samples per second (MSPS).*

4. *For the purpose of measuring output rate, one output word per second is equivalent to one Hertz or one sample per second.*

a.6. Electro-optical and “optical integrated circuits”, designed for “signal processing” and having all of the following:

- a.6.a. One or more than one internal “laser” diode;
- a.6.b. One or more than one internal light detecting element; and
- a.6.c. Optical waveguides;
- a.7. “Field programmable logic devices” having any of the following:
 - a.7.a. An equivalent usable gate count of more than 30,000 (2 input gates);
 - a.7.b. A typical “basic gate propagation delay time” of less than 0.1 ns; or
 - a.7.c. A toggle frequency exceeding 133 MHz;

Note: *3A001.a.7 includes:*

- Simple Programmable Logic Devices (SPLDs),
- Complex Programmable Logic Devices (CPLDs),
- Field Programmable Gate Arrays (FPGAs),
- Field Programmable Logic Arrays (FPLAs), and
- Field Programmable Interconnects (FPICs).

Technical Note: *Field programmable logic devices are also known as field programmable gate or field programmable logic arrays.*

a.8. [Reserved]

a.9. Neural network integrated circuits;

a.10. Custom integrated circuits for which the function is unknown, or the control status of the equipment in which the integrated circuits will be used is unknown to the manufacturer, having any of the following:

- a.10.a. More than 1,000 terminals;
- a.10.b. A typical “basic gate propagation delay time” of less than 0.1 ns; or
- a.10.c. An operating frequency exceeding 3 GHz;
- a.11. Digital integrated circuits, other than those described in 3A001.a.3 to 3A001.a.10 and 3A001.a.12, based upon any compound semiconductor and having any of the following:
 - a.11.a. An equivalent gate count of more than 3,000 (2 input gates); or
 - a.11.b. A toggle frequency exceeding 1.2 GHz;
- a.12. Fast Fourier Transform (FFT) processors having a rated execution time for an N-point complex FFT of less than $(N \log_2 N)/20,480$ ms, where N is the number of points;

Technical Note: *When N is equal to 1,024 points, the formula in 3A001.a.12 gives an execution time of 500 μs.*

b. Microwave or millimeter wave components, as follows:

b.1. Electronic vacuum tubes and cathodes, as follows:

Note 1: *3A001.b.1 does not control tubes designed or rated for operation in any frequency band and having all of the following:*

- a. Does not exceed 31.8 GHz; and
- b. Is “allocated by the ITU” for radio-communications services, but not for radio-determination.

Note 2: *3A001.b.1 does not control non-“space-qualified” tubes having all the following:*

- (a) *An average output power equal to or less than 50 W; and*
- (b) *Designed or rated for operation in any frequency band and having all of the following:*
 - (1) *Exceeds 31.8 GHz but does not exceed 43.5 GHz; and*
 - (2) *Is “allocated by the ITU” for radio-communications services, but not for radio-determination.*

b.1.a. Traveling wave tubes, pulsed or continuous wave, as follows:

b.1.a.1. Tubes operating at frequencies exceeding 31.8 GHz;

b.1.a.2. Tubes having a cathode heater element with a turn on time to rated RF power of less than 3 seconds;

b.1.a.3. Coupled cavity tubes, or derivatives thereof, with a “fractional bandwidth” of more than 7% or a peak power exceeding 2.5 kW;

b.1.a.4. Helix tubes, or derivatives thereof, having any of the following:

b.1.a.4.a. An “instantaneous bandwidth” of more than one octave, and average power (expressed in kW) times frequency (expressed in GHz) of more than 0.5;

b.1.a.4.b. An “instantaneous bandwidth” of one octave or less, and average power (expressed in kW) times frequency (expressed in GHz) of more than 1; or

b.1.a.4.c. Being “space qualified”;
b.1.b. Crossed-field amplifier tubes with a gain of more than 17 dB;

b.1.c. Impregnated cathodes designed for electronic tubes producing a continuous emission current density at rated operating conditions exceeding 5 A/cm²;

b.2. Microwave “Monolithic Integrated Circuits” (MMIC) power amplifiers having any of the following:

b.2.a. Rated for operation at frequencies exceeding 3.2 GHz up to and including 6 GHz and with an average output power greater than 4W (36 dBm) with a “fractional bandwidth” greater than 15%;

b.2.b. Rated for operation at frequencies exceeding 6 GHz up to and including 16 GHz and with an average output power greater than 1W (30 dBm) with a “fractional bandwidth” greater than 10%;

b.2.c. Rated for operation at frequencies exceeding 16 GHz up to and including 31.8 GHz and with an average output power greater than 0.8W (29 dBm) with a “fractional bandwidth” greater than 10%;

b.2.d. Rated for operation at frequencies exceeding 31.8 GHz up to and including 37.5 GHz;

b.2.e. Rated for operation at frequencies exceeding 37.5 GHz up to and including 43.5 GHz and with an average output power greater than 0.25W (24 dBm) with a “fractional bandwidth” greater than 10%; or

b.2.f. Rated for operation at frequencies exceeding 43.5 GHz.

Note 1: 3A001.b.2 does not control broadcast satellite equipment designed or rated to operate in the frequency range of 40.5 to 42.5 GHz.

Note 2: The control status of the MMIC whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.2.a through 3A001.b.2.f, is determined by the lowest average output power control threshold.

Note 3: Notes 1 and 2 following the Category 3 heading for A. Systems, Equipment, and Components mean that 3A001.b.2. does not control MMICs if they are specially designed for other applications, e.g., telecommunications, radar, automobiles.

b.3. Discrete microwave transistors having any of the following:

b.3.a. Rated for operation at frequencies exceeding 3.2 GHz up to and including 6 GHz and having an average output power greater than 60W (47.8 dBm);

b.3.b. Rated for operation at frequencies exceeding 6 GHz up to and including 31.8 GHz and having an average output power greater than 20W (43 dBm);

b.3.c. Rated for operation at frequencies exceeding 31.8 GHz up to and including 37.5 GHz and having an average output power greater than 0.5W (27 dBm);

b.3.d. Rated for operation at frequencies exceeding 37.5 GHz up to and including 43.5 GHz and having an average output power greater than 1W (30 dBm); or

b.3.e. Rated for operation at frequencies exceeding 43.5 GHz;

Note: The control status of a transistor whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.3.a through

3A001.b.3.e, is determined by the lowest average output power control threshold.

b.4. Microwave solid state amplifiers and microwave assemblies/modules containing microwave solid state amplifiers, having any of the following:

b.4.a. Rated for operation at frequencies exceeding 3.2 GHz up to and including 6 GHz and with an average output power greater than 60W (47.8 dBm) with a “fractional bandwidth” greater than 15%;

b.4.b. Rated for operation at frequencies exceeding 6 GHz up to and including 31.8 GHz and with an average output power greater than 15W (42 dBm) with a “fractional bandwidth” greater than 10%;

b.4.c. Rated for operation at frequencies exceeding 31.8 GHz up to and including 37.5 GHz;

b.4.d. Rated for operation at frequencies exceeding 37.5 GHz up to and including 43.5 GHz and with an average output power greater than 1W (30 dBm) with a “fractional bandwidth” greater than 10%;

b.4.e. Rated for operation at frequencies exceeding 43.5 GHz; or

b.4.f. Rated for operation at frequencies above 3.2 GHz and all of the following:

b.4.f.1. An average output power (in watts), P, greater than 150 divided by the maximum operating frequency (in GHz) squared [$P > 150 \text{ W} \cdot \text{GHz}^2 / f_{\text{GHz}}^2$];

b.4.f.2. A “fractional bandwidth” of 5% or greater; and

b.4.f.3. Any two sides perpendicular to one another with length d (in cm) equal to or less than 15 divided by the lowest operating frequency in GHz [$d \leq 15 \text{ cm} \cdot \text{GHz} / f_{\text{GHz}}$];

Technical Note: 3.2 GHz should be used as the lowest operating frequency (f_{GHz}) in the formula 3A001.b.4.f.3., for amplifiers that have a rated operation range extending downward to 3.2 GHz and below [$d \leq 15 \text{ cm} \cdot \text{GHz} / 3.2 f_{\text{GHz}}$].

N.B.: MMIC power amplifiers should be evaluated against the criteria in 3A001.b.2.

Note 1: 3A001.b.4. does not control broadcast satellite equipment designed or rated to operate in the frequency range of 40.5 to 42.5 GHz.

Note 2: The control status of an item whose rated operating frequency includes frequencies listed in more than one frequency range, as defined by 3A001.b.4.a through 3A001.b.4.e, is determined by the lowest average output power control threshold.

b.5. Electronically or magnetically tunable band-pass or band-stop filters, having more than 5 tunable resonators capable of tuning across a 1.5:1 frequency band ($f_{\text{max}}/f_{\text{min}}$) in less than 10 μs and having any of the following:

b.5.a. A band-pass bandwidth of more than 0.5% of center frequency; or

b.5.b. A band-stop bandwidth of less than 0.5% of center frequency;

b.6. [Reserved]

b.7. Converters and harmonic mixers, designed to extend the frequency range of equipment described in 3A002.c, 3A002.d, 3A002.e or 3A002.f beyond the limits stated therein;

b.8. Microwave power amplifiers containing tubes controlled by 3A001.b.1 and having all of the following:

b.8.a. Operating frequencies above 3 GHz;

b.8.b. An average output power density exceeding 80 W/kg; and

b.8.c. A volume of less than 400 cm³;

Note: 3A001.b.8 does not control equipment designed or rated for operation in any frequency band which is “allocated by the ITU” for radio-communications services, but not for radio-determination.

b.9. Microwave power modules (MPM), consisting of, at least, a traveling wave tube, a microwave “monolithic integrated circuit” and an integrated electronic power conditioner and having all of the following:

b.9.a. A “turn-on time” from off to fully operational in less than 10 seconds;

b.9.b. A volume less than the maximum rated power in Watts multiplied by 10 cm³/W; and

b.9.c. An “instantaneous bandwidth” greater than 1 octave ($f_{\text{max}} > 2f_{\text{min}}$), and having any of the following:

b.9.c.1. For frequencies equal to or less than 18 GHz, an RF output power greater than 100 W; or

b.9.c.2. A frequency greater than 18 GHz;

Technical Notes:

1. To calculate the volume in 3A001.b.9.b., the following example is provided: for a maximum rated power of 20 W, the volume would be: $20 \text{ W} \times 10 \text{ cm}^3/\text{W} = 200 \text{ cm}^3$.

2. The “turn-on time” in 3A001.b.9.a. refers to the time from fully-off to fully operational, i.e., it includes the warm-up time of the MPM.

c. Acoustic wave devices as follows and specially designed components therefor:

c.1. Surface acoustic wave and surface skimming (shallow bulk) acoustic wave devices (i.e., “signal processing” devices employing elastic waves in materials), having any of the following:

c.1.a. A carrier frequency exceeding 6 GHz;

c.1.b. A carrier frequency exceeding 1 GHz, but not exceeding 6 GHz and having any of the following:

c.1.b.1. A frequency side-lobe rejection exceeding 55 dB;

c.1.b.2. A product of the maximum delay time and the bandwidth (time in μs and bandwidth in MHz) of more than 100;

c.1.b.3. A bandwidth greater than 250 MHz; or

c.1.b.4. A dispersive delay of more than 10 μs ; or

c.1.c. A carrier frequency of 1 GHz or less and having any of the following:

c.1.c.1. A product of the maximum delay time and the bandwidth (time in μs and bandwidth in MHz) of more than 100;

c.1.c.2. A dispersive delay of more than 10 μs ; or

c.1.c.3. A frequency side-lobe rejection exceeding 55 dB and a bandwidth greater than 100 MHz;

c.2. Bulk (volume) acoustic wave devices (i.e., “signal processing” devices employing elastic waves) that permit the direct processing of signals at frequencies exceeding 2.5 GHz;

c.3. Acoustic-optic “signal processing” devices employing interaction between acoustic waves (bulk wave or surface wave) and light waves that permit the direct processing of signals or images, including spectral analysis, correlation or convolution;

d. Electronic devices and circuits containing components, manufactured from "superconductive" materials, specially designed for operation at temperatures below the "critical temperature" of at least one of the "superconductive" constituents and having any of the following:

d.1. Current switching for digital circuits using "superconductive" gates with a product of delay time per gate (in seconds) and power dissipation per gate (in watts) of less than 10^{-14} J; or

d.2. Frequency selection at all frequencies using resonant circuits with Q-values exceeding 10,000;

e. High energy devices as follows:

e.1. 'Cells' and photovoltaic arrays as follows:

e.1.a. 'Primary cells' having an 'energy density' exceeding 550 Wh/kg at 293 K (20 °C);

e.1.b. Secondary cells having an 'energy density' exceeding 250 Wh/kg at 293 K (20 °C);

Technical Notes:

1. For the purpose of 3A001.e.1., 'energy density' (Wh/kg) is calculated from the nominal voltage multiplied by the nominal capacity in ampere-hours (Ah) divided by the mass in kilograms. If the nominal capacity is not stated, energy density is calculated from the nominal voltage squared then multiplied by the discharge duration in hours divided by the discharge load in Ohms and the mass in kilograms.

2. For the purpose of 3A001.e.1., a 'cell' is defined as an electrochemical device, which has positive and negative electrodes, an electrolyte, and is a source of electrical energy. It is the basic building block of a battery.

3. For the purpose of 3A001.e.1.a., a 'primary cell' is a 'cell' that is not designed to be charged by any other source.

4. For the purpose of 3A001.e.1.b., a 'secondary cell' is a 'cell' that is designed to be charged by an external electrical source.

Note: 3A001.e. does not control batteries, including single-cell batteries.

e.2. High energy storage capacitors as follows:

e.2.a. Capacitors with a repetition rate of less than 10 Hz (single shot capacitors) and having all of the following:

e.2.a.1. A voltage rating equal to or more than 5 kV;

e.2.a.2. An energy density equal to or more than 250 J/kg; and

e.2.a.3. A total energy equal to or more than 25 kJ;

e.2.b. Capacitors with a repetition rate of 10 Hz or more (repetition rated capacitors) and having all of the following:

e.2.b.1. A voltage rating equal to or more than 5 kV;

e.2.b.2. An energy density equal to or more than 50 J/kg;

e.2.b.3. A total energy equal to or more than 100 J; and

e.2.b.4. A charge/discharge cycle life equal to or more than 10,000;

e.3. "Superconductive" electromagnets and solenoids, specially designed to be fully charged or discharged in less than one second and having all of the following:

Note: 3A001.e.3 does not control "superconductive" electromagnets or solenoids specially designed for Magnetic Resonance Imaging (MRI) medical equipment.

e.3.a. Energy delivered during the discharge exceeding 10 kJ in the first second;

e.3.b. Inner diameter of the current carrying windings of more than 250 mm; and

e.3.c. Rated for a magnetic induction of more than 8 T or "overall current density" in the winding of more than 300 A/mm²;

e.4. Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays, which are "space qualified," having a minimum average efficiency exceeding 20% at an operating temperature of 301 K (28 °C) under simulated 'AM0' illumination with an irradiance of 1,367 Watts per square meter (W/m²).

Technical Note: 'AM0', or 'Air Mass Zero', refers to the spectral irradiance of sun light in the earth's outer atmosphere when the distance between the earth and sun is one astronomical unit (AU).

f. Rotary input type shaft absolute position encoders having any of the following:

f.1. A resolution of better than 1 part in 265,000 (18 bit resolution) of full scale; or

f.2. An accuracy better than ± 2.5 seconds of arc;

g. Solid-state pulsed power switching thyristor devices and 'thyristor modules', using either electrically, optically, or electron radiation controlled switch methods and having any of the following:

g.1. A maximum turn-on current rate of rise (di/dt) greater than 30,000 A/ μ s and off-state voltage greater than 1,100 V; or

g.2. A maximum turn-on current rate of rise (di/dt) greater than 2,000 A/ μ s and having all of the following:

g.2.a. An off-state peak voltage equal to or greater than 3,000 V; and

g.2.b. A peak (surge) current equal to or greater than 3,000 A.

Note 1: 3A001.g. includes:

—Silicon Controlled Rectifiers (SCRs)

—Electrical Triggering Thyristors (ETTs)

—Light Triggering Thyristors (LTTs)

—Integrated Gate Commutated Thyristors (IGCTs)

—Gate Turn-off Thyristors (GTOs)

—MOS Controlled Thyristors (MCTs)

—Solidtrons

Note 2: 3A001.g. does not control thyristor devices and 'thyristor modules' incorporated into equipment designed for civil railway or "civil aircraft" applications.

■ 18. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3A002 is amended by revising the Heading, and the Related Controls and Items paragraphs in the List of Items Controlled section, to read as follows:

3A002 General purpose electronic equipment and accessories therefor, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

Unit: * * *

Related Controls: "Space qualified" atomic frequency standards defined in 3A002.g.1 are subject to the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121.1, Category XV). See also 3A292 and 3A992.

Related Definitions: * * *

Items:

a. Recording equipment as follows and specially designed test tape therefor:

a.1. Analog instrumentation magnetic tape recorders, including those permitting the recording of digital signals (e.g., using a high density digital recording (HDDR) module), having any of the following:

a.1.a. A bandwidth exceeding 4 MHz per electronic channel or track;

a.1.b. A bandwidth exceeding 2 MHz per electronic channel or track and having more than 42 tracks; or

a.1.c. A time displacement (base) error, measured in accordance with applicable IRIG or EIA documents, of less than ± 0.1 μ s;

Note: Analog magnetic tape recorders specially designed for civilian video purposes are not considered to be instrumentation tape recorders.

a. 2. Digital video magnetic tape recorders having a maximum digital interface transfer rate exceeding 360 Mbit/s;

Note: 3A002.a.2 does not control digital video magnetic tape recorders specially designed for television recording using a signal format, which may include a compressed signal format, standardized or recommended by the ITU, the IEC, the SMPTE, the EBU, the ETSI, or the IEEE for civil television applications.

a.3. Digital instrumentation magnetic tape data recorders employing helical scan techniques or fixed head techniques and having any of the following:

a.3.a. A maximum digital interface transfer rate exceeding 175 Mbit/s; or

a.3.b. Being "space qualified";

Note: 3A002.a.3 does not control analog magnetic tape recorders equipped with HDDR conversion electronics and configured to record only digital data.

a.4. Equipment having a maximum digital interface transfer rate exceeding 175 Mbit/s and designed to convert digital video magnetic tape recorders for use as digital instrumentation data recorders;

a.5. Waveform digitizers and transient recorders, having all of the following:
N.B.: See also 3A292.

a.5.a. Digitizing rates equal to or more than 200 million samples per second and a resolution of 10 bits or more; and

a.5.b. A 'continuous throughput' of 2 Gbit/s or more;

Technical Notes:

1. For those instruments with a parallel bus architecture, the 'continuous throughput' rate is the highest word rate multiplied by the number of bits in a word.

2. 'Continuous throughput' is the fastest data rate the instrument can output to mass storage without the loss of any information while sustaining the sampling rate and analog-to-digital conversion.

a.6. Digital instrumentation data recorders, using magnetic disk storage technique and having all of the following:

- a.6.a. Digitizing rate equal to or more than 100 million samples per second and a resolution of 8 bits or more; and
- a.6.b. A 'continuous throughput' of 1 Gbit/s or more;
- b. "Frequency synthesizer" "electronic assemblies" having a "frequency switching time" from one selected frequency to another of less than 1 ms;

Note: The control status of "signal analyzers", signal generators, network analyzers, and microwave test receivers as stand-alone instruments is determined by 3A002.c., 3A002.d., 3A002.e., and 3A002.f., respectively.

c. Radio-frequency "signal analyzers" as follows:

- c.1. "Signal analyzers" capable of analyzing any frequencies exceeding 31.8 GHz but not exceeding 37.5 GHz and having a 3 dB resolution bandwidth (RBW) exceeding 10 MHz;
- c.2. "Signal analyzers" capable of analyzing frequencies exceeding 43.5 GHz;
- c.3. "Dynamic signal analyzers" having a "real-time bandwidth" exceeding 500 kHz;

Note: 3A002.c.3 does not control those "dynamic signal analyzers" using only constant percentage bandwidth filters (also known as octave or fractional octave filters).

d. Frequency synthesized signal generators producing output frequencies, the accuracy and short term and long term stability of which are controlled, derived from or disciplined by the internal master reference oscillator, and having any of the following:

- d.1. A maximum synthesized frequency exceeding 31.8 GHz, but not exceeding 43.5 GHz and rated to generate a 'pulse duration' of less than 100 ns;
- d.2. A maximum synthesized frequency exceeding 43.5 GHz;
- d.3. A "frequency switching time" from one selected frequency to another as specified by any of the following:
 - d.3.a. Less than 10 ns;
 - d.3.b. Less than 100 μ s for any frequency change exceeding 1.6 GHz within the synthesized frequency range exceeding 3.2 GHz but not exceeding 10.6 GHz;
 - d.3.c. Less than 250 μ s for any frequency change exceeding 550 MHz within the synthesized frequency range exceeding 10.6 GHz but not exceeding 31.8 GHz;
 - d.3.d. Less than 500 μ s for any frequency change exceeding 550 MHz within the synthesized frequency range exceeding 31.8 GHz but not exceeding 43.5 GHz; or
 - d.3.e. Less than 1 ms within the synthesized frequency range exceeding 43.5 GHz; or
- d.4. A single sideband (SSB) phase noise better than $-(126 + 20 \log_{10} F) - 20 \log_{10} f$ in dBc/Hz, where F is the off-set from the operating frequency in Hz and f is the operating frequency in MHz;

Note 1: For the purpose of 3A002.d., frequency synthesized signal generators includes arbitrary waveform and function generators.

Note 2: 3A002.d. does not control equipment in which the output frequency is

either produced by the addition or subtraction of two or more crystal oscillator frequencies, or by an addition or subtraction followed by a multiplication of the result.

Technical Notes:

1. Arbitrary waveform and function generators are normally specified by sample rate (e.g., GSample/s), which is converted to the RF domain by the Nyquist factor of two. Thus, a 1 GSample/s arbitrary waveform has a direct output capability of 500 MHz. Or, when oversampling is used, the maximum direct output capability is proportionately lower.

2. For the purposes of 3A002.d.1., 'pulse duration' is defined as the time interval between the leading edge of the pulse achieving 90% of the peak and the trailing edge of the pulse achieving 10% of the peak.

Note: 3A002.d does not control equipment in which the output frequency is either produced by the addition or subtraction of two or more crystal oscillator frequencies, or by an addition or subtraction followed by a multiplication of the result.

- e. Network analyzers with a maximum operating frequency exceeding 43.5 GHz;
- f. Microwave test receivers having all of the following:
 - f.1. A maximum operating frequency exceeding 43.5 GHz; and
 - f.2. Being capable of measuring amplitude and phase simultaneously;
- g. Atomic frequency standards being any of the following:
 - g.1. "Space qualified";
 - g.2. Non-rubidium and having a long-term stability less (better) than 1×10^{-11} /month; or
 - g.3. Non-"space qualified" and having all of the following:
 - g.3.a. Being a rubidium standard;
 - g.3.b. Long-term stability less (better) than 1×10^{-11} /month; and
 - g.3.c. Total power consumption of less than 1 Watt.

■ 19. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3A229 is amended by revising the Related Controls paragraph, to read as follows:

3A229 Firing sets and equivalent high-current pulse generators (for detonators controlled by 3A232), as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Related Controls: (1) See ECCNs 3E001 and 1E001 ("development" and "production") and 3E201 and 1E201 ("use") for technology for items controlled under this entry. (2) High explosives and related equipment for military use are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

* * * * *

■ 20. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3

Electronics, Export Control Classification Number (ECCN) 3A232 is amended by revising the Related Controls and Items paragraphs in the List of Items Controlled section, to read as follows:

3A232 Detonators and multipoint initiation systems, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Related Controls: (1) See 1A007 for electrically driven explosive detonators. (2) See ECCNs 3E001 ("development" and "production") and 3E201 ("use") for technology for items controlled under this entry. (3) High explosives and related equipment for military use are subject to the export licensing authority of the U.S. Department of State, Directorate of Defense Trade Controls (see 22 CFR part 121).

* * * * *

Items:

- a. [Reserved]
- b. Arrangements using single or multiple detonators designed to nearly simultaneously initiate an explosive surface over an area greater than 5,000 mm² from a single firing signal with an initiation timing spread over the surface of less than 2.5 μ s.

Technical Note: The word *initiator* is sometimes used in place of the word *detonator*.

■ 21. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3A991 amended by adding a new paragraph (o) to the Items paragraph in the List of Items Controlled section, to read as follows:

3A991 Electronic devices and components not controlled by 3A001.

* * * * *

List of Items Controlled

* * * * *

Items:

* * * * *

- o. Solar cells, cell-interconnect-coverglass (CIC) assemblies, solar panels, and solar arrays, which are "space qualified" and not controlled by 3A001.e.4.

■ 22. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3B001 is amended by revising the Heading and the Items paragraph in the List of Items Controlled section, to read as follows:

3B001 Equipment for the manufacturing of semiconductor devices or materials, as follows (see List of Items Controlled) and specially designed components and accessories therefor.

* * * * *

List of Items Controlled

* * * * *

Items:

a. Equipment designed for epitaxial growth as follows:

a.1. Equipment capable of producing a layer of any material other than silicon with a thickness uniform to less than ±2.5% across a distance of 75 mm or more;

a.2. Metal Organic Chemical Vapor Deposition (MOCVD) reactors specially designed for compound semiconductor crystal growth by the chemical reaction between materials controlled by 3C003 or 3C004;

a.3. Molecular beam epitaxial growth equipment using gas or solid sources;

b. Equipment designed for ion implantation and having any of the following:

b.1. A beam energy (accelerating voltage) exceeding 1MeV;

b.2. Being specially designed and optimized to operate at a beam energy (accelerating voltage) of less than 2 keV;

b.3. Direct write capability; or

b.4. A beam energy of 65 keV or more and a beam current of 45 mA or more for high energy oxygen implant into a heated semiconductor material “substrate”;

c. Anisotropic plasma dry etching equipment as follows:

c.1. Equipment with cassette-to-cassette operation and load-locks, and having any of the following:

c.1.a. Designed or optimized to produce critical dimensions of 180 nm or less with ±5% 3 sigma precision; or

c.1.b. Designed for generating less than 0.04 particles/cm² with a measurable particle size greater than 0.1 µm in diameter;

c.2. Equipment specially designed for equipment controlled by 3B001.e. and having any of the following:

c.2.a. Designed or optimized to produce critical dimensions of 180 nm or less with ±5% 3 sigma precision; or

c.2.b. Designed for generating less than 0.04 particles/cm² with a measurable particle size greater than 0.1 µm in diameter;

d. Plasma enhanced Chemical Vapor Deposition (CVD) equipment as follows:

d.1. Equipment with cassette-to-cassette operation and load-locks, and designed according to the manufacturer’s specifications or optimized for use in the production of semiconductor devices with critical dimensions of 180 nm or less;

d.2. Equipment specially designed for equipment controlled by 3B001.e. and designed according to the manufacturer’s

specifications or optimized for use in the production of semiconductor devices with critical dimensions of 180 nm or less; e. Automatic loading multi-chamber central wafer handling systems having all of the following:

e.1. Interfaces for wafer input and output, to which more than two pieces of semiconductor processing equipment are to be connected; and

e.2. Designed to form an integrated system in a vacuum environment for sequential multiple wafer processing;

Note: 3B001.e. does not control automatic robotic wafer handling systems not designed to operate in a vacuum environment.

f. Lithography equipment as follows:

f.1. Align and expose step and repeat (direct step on wafer) or step and scan (scanner) equipment for wafer processing using photo-optical or X-ray methods and having any of the following:

f.1.a. A light source wavelength shorter than 245 nm; or

f.1.b. Capable of producing a pattern with a ‘minimum resolvable feature size’ of 180 nm or less;

Technical Note: The ‘minimum resolvable feature size’ is calculated by the following formula:

MRF = (an exposure light source wavelength in nm) × (K factor) / numerical aperture

Where the K factor = 0.45

MRF = ‘minimum resolvable feature size’.

f.2 Imprint lithography equipment capable of production features of 180 nm or less;

Note: 3B001.f.2 includes:

—Micro contact printing tools

—Hot embossing tools

—Nano-imprint lithography tools

—Step and flash imprint lithography (S-FIL) tools.

f.3. Equipment specially designed for mask making or semiconductor device processing using direct writing methods and having all of the following:

f.3.a. Using deflected focused electron beam, ion beam or “laser” beam; and

f.3.b. Having any of the following:

f.3.b.1. A spot size smaller than 0.2 µm;

f.3.b.2. Being capable of producing a pattern with a feature size of less than 1 µm; or

f.3.b.3. An overlay accuracy of better than ±0.20 µm (3 sigma);

g. Masks and reticles, designed for integrated circuits controlled by 3A001;

h. Multi-layer masks with a phase shift layer;

Note: 3B001.h. does not control multi-layer masks with a phase shift layer designed for the fabrication of memory devices not controlled by 3A001.

i. Imprint lithography templates designed for integrated circuits by 3A001.

■ 23. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control

Classification Number (ECCN) 3C002 is amended by:

■ a. Revising the Heading;

■ b. Revising the GBS and CIV paragraphs in the License Exception section; and

■ c. Replacing the semicolon with a period at the end of paragraph d; and

■ d. Adding paragraph e to the Items paragraph in the List of Items Controlled section, to read as follows:

3C002 Resist materials as follows (see List of Items Controlled) and “substrates” coated with the following resists.

* * * * *

License Exceptions

* * * * *

GBS: Yes for positive resists not optimized for photolithography at a wavelength of less than 365 nm, provided that they are not controlled by 3C002.b through .e.

CIV: Yes for positive resists not optimized for photolithography at a wavelength of less than 365 nm, provided that they are not controlled by 3C002.b through .e.

List of Items Controlled

* * * * *

Items:

* * * * *

e. All resists designed or optimized for use with imprint lithography equipment specified by 3B001.f.2. that use either a thermal or photo-curable process.

■ 24. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3C005 is amended by revising the Heading, to read as follows:

3C005 Silicon carbide (SiC), gallium nitride (GaN), aluminum nitride (AlN) or aluminum gallium nitride (AlGaIn) “substrates”, or ingots, boules, or other preforms of those materials, having resistivities greater than 10,000 ohm-cm at 20 °C.

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■ 25. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3C006 is added after ECCN 3C005, to read as follows:

3C006 “Substrates” specified in 3C005 with at least one epitaxial layer of silicon carbide, gallium nitride, aluminum nitride or aluminum gallium nitride.

License Requirements

Reason for Control: NS, AT

Control(s)	Country Chart
NS applies to entire entry	NS Column 2.
AT applies to entire entry	AT Column 1.

License Exceptions

LVS: \$3000
GBS: Yes
CIV: Yes

List of Items Controlled

Unit: \$ value

Related Controls: See ECCN 3D001 for related “development” or “production” “software”, ECCN 3E001 for related “development” and “production” “technology”, and ECCN 3B991.b.1.b for related “production” equipment.

Related Definition: N/A

Items:

The list of items controlled is contained in the ECCN heading.

■ 26. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3D001 is amended by:

(a) Revising the Related Controls paragraph of the List of Items Controlled section; and

(b) Removing the text of the Related Definitions paragraph of the List of Items Controlled section and replacing it with “N/A” to read as follows:

3D001 “Software” specially designed for the “development” or “production” of equipment controlled by 3A001.b to 3A002.g or 3B (except 3B991 and 3B992).

List of Items Controlled

Unit: * * *

Related Controls: “Software” specially designed for the “development” or “production” of the following equipment is under the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121): (1.) When operating at frequencies higher than 31.8 GHz and “space qualified”: Helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; and traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (2.) “Space qualified” solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) assemblies, solar arrays, and/or solar panels, with a minimum average efficiency of 31% or greater at an operating temperature of 301 °K (28 °C) under simulated ‘AM0’ illumination with an irradiance of 1,367 Watts per square meter (W/m²), and associated solar concentrators, power conditioners, and/or controllers, bearing and power transfer assemblies, and deployment hardware/systems. (3.) “Space qualified” atomic frequency standards defined in 3A002.g.2. See also 3D101.

Related Definitions: N/A

Items: * * *

■ 27. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 3 Electronics, Export Control Classification Number (ECCN) 3E001 is amended by:

■ a. Revising the Heading;

- b. Revising the NS column 1 paragraph of the License Requirements section;
- c. Revising the Related Controls paragraph of the List of Items Controlled section;
- d. Revising the License Exceptions section;
- e. Removing the text of the Related Definitions paragraph of the List of Items and replacing it with “N/A”; and
- f. Revising the technical note in the Items paragraph of the List of Items Controlled section, to read as follows:

3E001 “Technology” according to the General Technology Note for the “development” or “production” of equipment or materials controlled by 3A (except 3A292, 3A980, 3A981, 3A991 3A992, or 3A999), 3B (except 3B991 or 3B992) or 3C (except 3C992).

License Requirements

* * * * *

Control(s)	Country Chart
NS applies to “technology” for items controlled by 3A001, 3A002, 3B001,3B002, or 3C001 to 3C006.	NS Column 1.

* * * * *

License Exceptions

CIV: N/A

TSR: Yes, except N/A for MT, and “technology” specially designed for the “development” or “production” of: (a) Traveling Wave Tube Amplifiers described in 3A001.b.8, having operating frequencies exceeding 19 GHz; and (b) solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) assemblies, solar arrays and/or solar panels, which are “space qualified,” having a minimum average efficiency exceeding 20% but less than 31% described in 3A001.e.4.

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List of Items Controlled

* * * * *

Related Controls: (1) See also 3E101 and 3E201. (2) “Technology” according to the General Technology Note for the “development” or “production” of the following commodities is under the export licensing authority of the Department of State, Directorate of Defense Trade Controls (22 CFR part 121): (a) When operating at frequencies higher than 31.8 GHz and “space qualified”: helix tubes (traveling wave tubes (TWT)) defined in 3A001.b.1.a.4.c; microwave solid state amplifiers defined in 3A001.b.4.b; or traveling wave tube amplifiers (TWTA) defined in 3A001.b.8; (b) “Space qualified” solar cells, coverglass-interconnect-cells or covered-interconnect-cells (CIC) assemblies, solar arrays, and/or solar panels, with a minimum average efficiency of 31% or greater at an operating temperature of 301 °K (28 °C) under simulated ‘AM0’ illumination with an

irradiance of 1,367 Watts per square meter (W/m²), and associated solar concentrators, power conditioners, and/or controllers, bearing and power transfer assemblies, and deployment hardware/systems. and (c) “Space qualified” atomic frequency standards defined in 3A002.g.2.

Related Definition: N/A

Items:

* * * * *

Technical Note: Multi-layer structures in Note 2 of 3E001 do not include devices incorporating a maximum of three metal layers and three polysilicon layers.

28. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 5 Telecommunications and “Information Security”, Part I Telecommunications, Export Control Classification Number (ECCN) 5A001 is amended by revising the Heading and the Items paragraph of the List of Items Controlled section to read as follows:

5A001 Telecommunications systems, equipment, components and accessories, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Items:

a. Any type of telecommunications equipment having any of the following characteristics, functions or features:

- a.1. Specially designed to withstand transitory electronic effects or electromagnetic pulse effects, both arising from a nuclear explosion;
- a.2. Specially hardened to withstand gamma, neutron or ion radiation; or
- a.3. Specially designed to operate outside the temperature range from 218 K (– 55 °C) to 397 K (124 °C);

Note: 5A001.a.3 applies only to electronic equipment.

Note: 5A001.a.2 and 5A001.a.3 do not apply to equipment designed or modified for use on board satellites.

b. Telecommunication systems and equipment, and specially designed components and accessories therefor, having any of the following characteristics, functions or features:

b.1 Being underwater untethered communications systems having any of the following:

- b.1.a. An acoustic carrier frequency outside the range from 20 kHz to 60 kHz;
- b.1.b. Using an electromagnetic carrier frequency below 30 kHz; or
- b.1.c. Using electronic beam steering techniques; or
- b.1.d. Using “lasers” or light-emitting diodes (LEDs) with an output wavelength greater than 400 nm and less than 700 nm, in a “local area network”;

b.2. Being radio equipment operating in the 1.5 MHz to 87.5 MHz band and having all of the following:

- b.2.a. Automatically predicting and selecting frequencies and “total digital transfer rates” per channel to optimize the transmission; and

b.2.b. Incorporating a linear power amplifier configuration having a capability to support multiple signals simultaneously at an output power of 1 kW or more in the frequency range of 1.5 MHz or more but less than 30 MHz, or 250 W or more in the frequency range of 30 MHz or more but not exceeding 87.5 MHz, over an "instantaneous bandwidth" of one octave or more and with an output harmonic and distortion content of better than -80 dB;

b.3. Being radio equipment employing "spread spectrum" techniques, including "frequency hopping" techniques, not controlled in 5A001.b.4 and having any of the following:

b.3.a. User programmable spreading codes; or

b.3.b. A total transmitted bandwidth which is 100 or more times the bandwidth of any one information channel and in excess of 50 kHz;

Note: 5A001.b.3.b does not control radio equipment specially designed for use with civil cellular radio-communications systems.

Note: 5A001.b.3 does not control equipment operating at an output power of 1 W or less.

b.4. Being radio equipment employing ultra-wideband modulation techniques, having user programmable channelizing codes, scrambling codes, or network identification codes and having any of the following:

b.4.a. A bandwidth exceeding 500 MHz; or

b.4.b. A "fractional bandwidth" of 20% or more;

b.5. Being digitally controlled radio receivers having all of the following:

b.5.a. More than 1,000 channels;

b.5.b. A "frequency switching time" of less than 1 ms;

b.5.c. Automatic searching or scanning of a part of the electromagnetic spectrum; and

b.5.d. Identification of the received signals or the type of transmitter; or

Note: 5A001.b.5 does not control radio equipment specially designed for use with civil cellular radio-communications systems.

b.6. Employing functions of digital "signal processing" to provide 'voice coding' output at rates of less than 2,400 bit/s.

Technical Notes: 1. For variable rate 'voice coding', 5A001.b.6 applies to the 'voice coding' output of continuous speech.

2. For the purpose of 5A001.b.6, 'voice coding' is defined as the technique to take samples of human voice and then convert these samples of human voice and then convert these samples into a digital signal taking into account specific characteristics of human speech.

c. Optical fiber communication cables, optical fibers and accessories, as follows:

c.1. Optical fibers of more than 500 m in length specified by the manufacturer as being capable of withstanding a 'proof test' tensile stress of 2×10^9 N/m² or more;

Technical Note: 'Proof Test': on-line or off-line production screen testing that dynamically applies a prescribed tensile stress over a 0.5 to 3 m length of fiber at a running rate of 2 to 5 m/s while passing between capstans approximately 150 mm in

diameter. The ambient temperature is a nominal 293 K (20 °C) and relative humidity 40%. Equivalent national standards may be used for executing the proof test.

c.2. Optical fiber cables and accessories, designed for underwater use;

Note: 5A001.c.2 does not control standard civil telecommunication cables and accessories.

N.B. 1: For underwater umbilical cables, and connectors thereof, see 8A002.a.3.

N.B. 2: For fiber-optic hull penetrators or connectors, see 8A002.c.

d. "Electronically steerable phased array antennae" operating above 31.8 GHz;

Note: 5A001.d does not control "electronically steerable phased array antennae" for landing systems with instruments meeting ICAO standards covering Microwave Landing Systems (MLS).

e. Radio direction finding equipment operating at frequencies above 30 MHz and having all of the following, and specially designed components therefor:

e.1. "Instantaneous bandwidth" of 10 MHz or more; and

e.2. Capable of finding a Line Of Bearing (LOB) to non-cooperating radio transmitters with a signal duration of less than 1 ms;

f. Jamming equipment specially designed or modified to intentionally and selectively interfere with, deny, inhibit, degrade or seduce mobile telecommunication services and having any of the following characteristics, and specially designed components therefor:

f.1. Simulating the functions of Radio Access Network (RAN) equipment; or

f.2. Detecting and exploiting specific characteristics of the mobile telecommunications protocol employed (e.g., GSM);

N.B.: For GNSS jamming equipment see the Munitions List.

g. Passive Coherent Location (PCL) systems or equipment, specially designed for detecting and tracking moving objects by measuring reflections of ambient radio frequency emissions, supplied by non-radar transmitters.

Technical Note: Non-radar transmitters may include commercial radio, television or cellular telecommunications base stations.

Note: 5A001.g. does not control:

a. Radio-astronomical equipment; or

b. Systems or equipment, that require any radio transmission from the target.

■ 29. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 5 Telecommunications and "Information Security", Part 2 Information Security, Export Control Classification Number (ECCN) 5A002 is amended by revising the Heading and the Items paragraph of the List of Items Controlled section, to read as follows:

5A002 "Information security" systems, equipment and components therefor, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

* * * * *

Items:

Note: 5A002 does not control any of the following. However, these items are instead controlled under 5A992:

(a) "Personalized smart cards" having any of the following:

(1) Where the cryptographic capability is restricted for use in equipment or systems excluded from control paragraphs (b) through (g) of this Note; or

(2) For general public-use applications where the cryptographic capability is not user-accessible and it is specially designed and limited to allow protection of personal data stored within;

N.B.: If a "personalized smart card" has multiple functions, the control status of each function is assessed individually.

(b) Receiving equipment for radio broadcast, pay television or similar restricted audience broadcast of the consumer type, without digital encryption except that exclusively used for sending the billing or program-related information back to the broadcast providers;

(c) Equipment where the cryptographic capability is not user-accessible and which is specially designed and limited to allow any of the following:

(1) Execution of copy-protected "software";

(2) Access to any of the following:

(a) Copy-protected contents stored on read-only media; or

(b) Information stored in encrypted form on media (e.g., in connection with the protection of intellectual property rights) where the media is offered for sale in identical sets to the public;

(3) Copying control of copyright protected audio/video data; or

(4) Encryption and/or decryption for protection of libraries, design attributes, or associated data for the design of semiconductor devices or integrated circuits;

(d) Cryptographic equipment specially designed and limited for banking use or 'money transactions';

Technical Note: The term 'money transactions' includes the collection and settlement of fares or credit functions.

(e) Portable or mobile radiotelephones for civil use (e.g., for use with commercial civil cellular radio communication systems) that are not capable of transmitting encrypted data directly to another radiotelephone or equipment (other than Radio Access Network (RAN) equipment), nor of passing encrypted data through RAN equipment (e.g., Radio Network Controller (RNC) or Base Station Controller (BSC));

(f) Cordless telephone equipment not capable of end-to-end encryption where the maximum effective range of unboosted cordless operation (e.g., a single, unrelayed hop between terminal and home base station) is less than 400 meters according to the manufacturer's specifications; or

(g) Portable or mobile radiotelephones and similar client wireless devices for civil use, that implement only published or commercial cryptographic standards (except for anti-piracy functions, which may be non-published) and also meet the provisions of paragraphs b. to d. of the Cryptography Note

(Note 3 in Category 5—Part 2), that have been customized for a specific civil industry application with features that do not affect the cryptographic functionality of these original non-customized devices.

Technical Note: Parity bits are not included in the key length.

a. Systems, equipment, application specific “electronic assemblies”, modules and integrated circuits for “information security”, as follows and other specially designed components therefor:

N.B.: For the control of Global Navigation Satellite Systems (GNSS) receiving equipment containing or employing decryption (i.e., GPS or GLONASS) see 7A005.

a.1. Designed or modified to use “cryptography” employing digital techniques performing any cryptographic function other than authentication or digital signature and having any of the following:

Technical Notes:

1. Authentication and digital signature functions include their associated key management function.

2. Authentication includes all aspects of access control where there is no encryption of files or text except as directly related to the protection of passwords, Personal Identification Numbers (PINs) or similar data to prevent unauthorized access.

3. “Cryptography” does not include “fixed” data compression or coding techniques.

Note: 5A002.a.1 includes equipment designed or modified to use “cryptography” employing analog principles when implemented with digital techniques.

a.1.a. A “symmetric algorithm” employing a key length in excess of 56-bits; or

a.1.b. An “asymmetric algorithm” where the security of the algorithm is based on any of the following:

a.1.b.1. Factorization of integers in excess of 512 bits (e.g., RSA);

a.1.b.2. Computation of discrete logarithms in a multiplicative group of a finite field of size greater than 512 bits (e.g., Diffie-Hellman over $\mathbb{Z}/p\mathbb{Z}$); or

a.1.b.3. Discrete logarithms in a group other than mentioned in 5A002.a.1.b.2 in excess of 112 bits (e.g., Diffie-Hellman over an elliptic curve);

a.2. Designed or modified to perform cryptanalytic functions;

a.3. [Reserved]

a.4. Specially designed or modified to reduce the compromising emanations of information-bearing signals beyond what is necessary for health, safety or electromagnetic interference standards;

a.5. Designed or modified to use cryptographic techniques to generate the spreading code for “spread spectrum” systems, not controlled in 5A002. a.6., including the hopping code for “frequency hopping” systems;

a.6. Designed or modified to use cryptographic techniques to generate channelizing codes, scrambling codes or network identification codes, for systems using ultra-wideband modulation techniques and having any of the following:

a.6.a. A bandwidth exceeding 500 MHz; or

a.6.b. A “fractional bandwidth” of 20% or more;

a.7. [Reserved]

a.8. Communications cable systems designed or modified using mechanical, electrical or electronic means to detect surreptitious intrusion;

a.9. Designed or modified to use ‘quantum cryptography.’

Technical Notes:

1. ‘Quantum cryptography’ A family of techniques for the establishment of a shared key for “cryptography” by measuring the quantum-mechanical properties of a physical system (including those physical properties explicitly governed by quantum optics, quantum field theory, or quantum electrodynamics).

2. ‘Quantum cryptography’ is also known as Quantum Key Distribution (QKD).

■ 30. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 6 Sensors, Export Control Classification Number (ECCN) 6A001 is amended by revising the Heading and the Items paragraph of the List of Items Controlled section, to read as follows:

6A001 Acoustic systems, equipment and components, as follows (see List of Items Controlled).

* * * * *

List of Items Controlled

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Items:

a. Marine acoustic systems, equipment and specially designed components therefor, as follows:

a.1. Active (transmitting or transmitting-and-receiving) systems, equipment and specially designed components therefor, as follows:

Note: 6A001.a.1 does not control:

a. Depth sounders operating vertically below the apparatus, not including a scanning function exceeding $\pm 20^\circ$, and limited to measuring the depth of water, the distance of submerged or buried objects or fish finding;

b. Acoustic beacons, as follows:

1. Acoustic emergency beacons;

2. Pingers specially designed for relocating or returning to an underwater position.

a.1.a. Wide-swath bathymetric survey systems designed for sea bed topographic mapping and having all of the following:

a.1.a.1. Designed to take measurements at an angle exceeding 20° from the vertical;

a.1.a.2. Designed to measure depths exceeding 600 m below the water surface; and

a.1.a.3. Designed to provide any of the following:

a.1.a.3.a. Incorporation of multiple beams any of which is less than 1.9° ; or

a.1.a.3.b. Data accuracies of better than 0.3% of water depth across the swath averaged over the individual measurements within the swath;

a.1.b. Object detection or location systems, having any of the following:

a.1.b.1. A transmitting frequency below 10 kHz;

a.1.b.2. Sound pressure level exceeding 224dB (reference 1 μ Pa at 1 m) for equipment

with an operating frequency in the band from 10 kHz to 24 kHz inclusive;

a.1.b.3. Sound pressure level exceeding 235 dB (reference 1 μ Pa at 1 m) for equipment with an operating frequency in the band between 24 kHz and 30 kHz;

a.1.b.4. Forming beams of less than 1° on any axis and having an operating frequency of less than 100 kHz;

a.1.b.5. Designed to operate with an unambiguous display range exceeding 5,120 m; or

a.1.b.6. Designed to withstand pressure during normal operation at depths exceeding 1,000 m and having transducers with any of the following:

a.1.b.6.a. Dynamic compensation for pressure; or

a.1.b.6.b. Incorporating other than lead zirconate titanate as the transduction element;

a.1.c. Acoustic projectors, including transducers, incorporating piezoelectric, magnetostrictive, electrostrictive, electrodynamic or hydraulic elements operating individually or in a designed combination and having any of the following:

Notes: 1. The control status of acoustic projectors, including transducers, specially designed for other equipment is determined by the control status of the other equipment.

2. 6A001.a.1.c does not control electronic sources that direct the sound vertically only, or mechanical (e.g., air gun or vapor-shock gun) or chemical (e.g., explosive) sources.

a.1.c.1. An instantaneous radiated ‘acoustic power density’ exceeding 0.01 mW/mm²/Hz for devices operating at frequencies below 10 kHz;

a.1.c.2. A continuously radiated ‘acoustic power density’ exceeding 0.001 mW/mm²/Hz for devices operating at frequencies below 10 kHz; or

Technical Note: ‘Acoustic power density’ is obtained by dividing the output acoustic power by the product of the area of the radiating surface and the frequency of operation.

a.1.c.3. Side-lobe suppression exceeding 22 dB;

a.1.d. Acoustic systems, equipment and specially designed components for determining the position of surface vessels or underwater vehicles, designed to operate at a range exceeding 1,000 m with a positioning accuracy of less than 10 m rms (root mean square) when measured at a range of 1,000 m;

Note: 6A001.a.1.d includes:

a. Equipment using coherent “signal processing” between two or more beacons and the hydrophone unit carried by the surface vessel or underwater vehicle;

b. Equipment capable of automatically correcting speed-of-sound propagation errors for calculation of a point.

a.2. Passive (receiving, whether or not related in normal application to separate active equipment) systems, equipment and specially designed components therefor, as follows:

a.2.a. Hydrophones having any of the following:

Note: The control status of hydrophones specially designed for other equipment is determined by the control status of the other equipment.

a.2.a.1. Incorporating continuous flexible sensing elements;
 a.2.a.2. Incorporating flexible assemblies of discrete sensing elements with either a diameter or length less than 20 mm and with a separation between elements of less than 20 mm;

a.2.a.3. Having any of the following sensing elements:

a.2.a.3.a. Optical fibers;
 a.2.a.3.b. 'Piezoelectric polymer films' other than polyvinylidene-fluoride (PVDF) and its co-polymers {P(VDF-TrFE) and P(VDF-TFE)}; or

a.2.a.3.c. 'Flexible piezoelectric composites';

a.2.a.4. A 'hydrophone sensitivity' better than -180dB at any depth with no acceleration compensation;

a.2.a.5. Designed to operate at depths exceeding 35 m with acceleration compensation; or

a.2.a.6. Designed for operation at depths exceeding 1,000 m;

Technical Notes: 1. 'Piezoelectric polymer film' sensing elements consist of polarized polymer film that is stretched over and attached to a supporting frame or spool (mandrel).

2. 'Flexible piezoelectric composite' sensing elements consist of piezoelectric ceramic particles or fibers combined with an electrically insulating, acoustically transparent rubber, polymer or epoxy compound, where the compound is an integral part of the sensing elements.

3. 'Hydrophone sensitivity' is defined as twenty times the logarithm to the base 10 of the ratio of rms output voltage to a 1 V rms reference, when the hydrophone sensor, without a pre-amplifier, is placed in a plane wave acoustic field with an rms pressure of 1 μ Pa. For example, a hydrophone of -160 dB (reference 1 V per μ Pa) would yield an output voltage of 10^{-8} V in such a field, while one of -180 dB sensitivity would yield only 10^{-9} V output. Thus, -160 dB is better than -180 dB.

a.2.b. Towed acoustic hydrophone arrays having any of the following:

a.2.b.1. Hydrophone group spacing of less than 12.5 m or 'able to be modified' to have hydrophone group spacing of less than 12.5 m;

a.2.b.2. Designed or 'able to be modified' to operate at depths exceeding 35m;

Technical Note: 'Able to be modified' in 6A001.a.2.b means having provisions to allow a change of the wiring or interconnections to alter hydrophone group spacing or operating depth limits. These provisions are: spare wiring exceeding 10% of the number of wires, hydrophone group spacing adjustment blocks or internal depth limiting devices that are adjustable or that control more than one hydrophone group.

a.2.b.3. Heading sensors controlled by 6A001.a.2.d;

a.2.b.4. Longitudinally reinforced array hoses;

a.2.b.5. An assembled array of less than 40 mm in diameter;

a.2.b.6. [Reserved]; or

a.2.b.7. Hydrophone characteristics controlled by 6A001.a.2.a;

a.2.c. Processing equipment, specially designed for towed acoustic hydrophone

arrays, having "user accessible programmability" and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes;

a.2.d. Heading sensors having all of the following:

a.2.d.1. An accuracy of better than $\pm 0.5^\circ$; and

a.2.d.2. Designed to operate at depths exceeding 35 m or having an adjustable or removable depth sensing device in order to operate at depths exceeding 35 m;

a.2.e. Bottom or bay cable systems, having any of the following:

a.2.e.1. Incorporating hydrophones controlled by 6A001.a.2.a; or

a.2.e.2. Incorporating multiplexed hydrophone group signal modules having all of the following characteristics:

a.2.e.2.a. Designed to operate at depths exceeding 35 m or having an adjustable or removable depth sensing device in order to operate at depths exceeding 35 m; and

a.2.e.2.b. Capable of being operationally interchanged with towed acoustic hydrophone array modules;

a.2.f. Processing equipment, specially designed for bottom or bay cable systems, having "user accessible programmability" and time or frequency domain processing and correlation, including spectral analysis, digital filtering and beamforming using Fast Fourier or other transforms or processes;

b. Correlation-velocity and Doppler-velocity sonar log equipment designed to measure the horizontal speed of the equipment carrier relative to the sea bed, as follows:

b.1. Correlation-velocity sonar log equipment having any of the following characteristics:

b.1.a. Designed to operate at distances between the carrier and the sea bed exceeding 500 m; or

b.1.b. Having speed accuracy better than 1% of speed;

b.2. Doppler-velocity sonar log equipment having speed accuracy better than 1% of speed.

Note 1: 6A001.b. does not apply to depth sounders limited to any of the following:

a. Measuring the depth of water;

b. Measuring the distance of submerged or buried objects; or

c. Fish finding.

Note 2: 6A001.b. does not apply to equipment specially designed for installation on surface vessels.

■ 31. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 6 Sensors, Export Control Classification Number (ECCN) 6A005 is amended by:

■ a. Revising the citation "6A005.b.2, b.3, or b.4" to read "6A005.a.4, b.2, b.3, b.4" in paragraph g of the License Requirements Note;

■ b. Revising the phrase "Dye and Liquid Lasers controlled by 6A005.c.1 and c.2," to read "Dye and Liquid Lasers controlled by 6A005.c.1, c.2 and c.3," in the GBS and CIV paragraphs of the License Exception section; and

■ 32. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 6 Sensors, Export Control Classification Number (ECCN) 6A995, the Note following paragraph e.2.b is amended by revising the citation "6A995.e.1.b" to read "6A995.e.2.b".

■ 33. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 7 Navigation and Avionics, Export Control Classification Number (ECCN) 7A002 is amended by removing the term "drift rate" and adding in its place "bias" in 7A002.a and 7A002.c.1 in the Items paragraph of the List of Items Controlled section.

■ 34. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 7 Navigation and Avionics, Export Control Classification Number (ECCN) 7A003 is amended by revising the Items paragraph of the List of Items Controlled section, to read as follows:

7A003 Inertial Systems and specially designed components therefor.

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List of Items Controlled

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Items:

a. Inertial Navigation Systems (INS) (gimbal or strapdown) and inertial equipment designed for "aircraft", land vehicles, vessels (surface or underwater) or "spacecraft" for navigation, attitude, guidance or control, having any of the following characteristics, and specially designed components therefor:

a.1. Navigation error (free inertial) subsequent to normal alignment of 0.8 nautical mile per hour (nm/hr) "Circular Error Probable" ("CEP") or less (better); or

a.2. Specified to function at linear acceleration levels exceeding 10 g;

b. Hybrid Inertial Navigation Systems embedded with Global Navigation Satellite System(s) (GNSS) or with "Data-Based Referenced Navigation" ("DBRN") System(s) for navigation, attitude, guidance or control, subsequent to normal alignment, having an INS navigation position accuracy, after loss of GNSS or "DBRN" for a period of up to 4 minutes, of less (better) than 10 meters "Circular Error Probable" ("CEP");

c. Inertial Measurement equipment for heading or True North determination having any of the following, and specially designed components therefor:

c.1. Designed to have heading or True North determination accuracy equal to, or less (better) than 0.07 deg sec (Lat) equivalent to 6 arc minutes RMS at 45 degrees latitude; or

c.2. Designed to have a non-operating shock level of 900 g or greater at a duration of 1-msec or greater;

d. Inertial measurement equipment including Inertial Measurement Units (IMU) and Inertial Reference Systems (IRS), incorporating accelerometers or gyros controlled by 7A001 or 7A002, and specially designed components therefor.

Note 1: The parameters of 7A003.a and 7A003.b are applicable with any of the following environmental conditions:

a. Input random vibration with an overall magnitude of 7.7 g rms in the 0.5 hour and a total test duration of 1.5 hour per axis in each of the 3 perpendicular axes, when the random vibration meets all of the following:

1. A constant Power Spectral Density (PSD) value of 0.04 g²/Hz over a frequency interval of 15 to 1,000 Hz; and

2. The PSD attenuates with frequency from 0.04 g²/Hz to 0.01 g²/Hz over a frequency interval from 1,000 to 2,000 Hz;

b. An angular rate capability about one or more axes of equal to or more than +2.62 rad/s (150 deg/s); or

c. According to national standards equivalent to a. or b. of this note.

Note 2: 7A003 does not control inertial navigation systems that are certified for use on "civil aircraft" by civil authorities of a Wassenaar Arrangement Participating State, see Supplement No. 1 to Part 743 for a list of these countries.

Note 3: 7A003.c.1 does not control theodolite systems incorporating inertial equipment specially designed for civil surveying purposes.

Technical Note: 7A003.b refers to systems in which an INS and other independent navigation aids are built into a single unit (embedded) in order to achieve improved performance.

■ 35. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 7 Navigation and Avionics, Export Control Classification Number (ECCN) 7A008 is amended by revising the Heading and Related Controls paragraph in the List of Items Controlled section, to read as follows:

7A008 Underwater sonar navigation systems, using Doppler velocity or correlation velocity logs integrated with a heading source and having a positioning accuracy of equal to or less (better) than 3% of distance traveled "Circular Error Probable" ("CEP"), and specially designed components therefore.

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List of Items Controlled

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Related Controls: 7A008 does not control systems specially designed for installation on surface vessels or systems requiring acoustic beacons or buoys to provide positioning data. See 6A001.a for acoustic systems, and 6A001.b for correlation-velocity and Doppler-velocity sonar log equipment. See 8A002 for other marine systems.

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■ 36. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 9 Aerospace and Propulsion, Export Control Classification Number 9A012 is amended by revising the Heading and the Items paragraph in the List of Items Controlled section, to read as follows:

9A012 Non-military "unmanned aerial vehicles," ("UAVs"), associated systems, equipment and components, as follows. (see List of Items Controlled).

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List of Items Controlled

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Items:

a. "UAVs" having any of the following:

a.1. An autonomous flight control and navigation capability (e.g., an autopilot with an Inertial Navigation System); or

a.2. Capability of controlled flight out of the direct visual range involving a human operator (e.g., televisual remote control);

b. Associated systems, equipment and components, as follows:

b.1. Equipment specially designed for remotely controlling the "UAVs" controlled by 9A012.a.;

b.2. Guidance or control systems, other than those controlled in Category 7, specially designed for integration into "UAVs" controlled by 9A012.a.;

b.3. Equipment and components specially designed to convert a manned "aircraft" to a "UAV" controlled by 9A012.a.;

b.4. Air breathing reciprocating or rotary internal combustion type engines, specially designed or modified to propel "UAVs" at altitudes above 50,000 feet (15,240 meters).

Note: 9A012 does not control model aircraft.

■ 37. In Supplement No. 1 to Part 774 (the Commerce Control List), Category 9 Aerospace and Propulsion, Export Control Classification Number 9E003 is amended by revising the Heading and the Items paragraph in the List of Items Controlled section, to read as follows:

9E003 Other "technology" as follows (see List of Items Controlled).

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List of Items Controlled

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Items:

a. "Technology" "required" for the "development", "production" of any of the following gas turbine engine components or systems:

a.1. Gas turbine blades, vanes or tip shrouds, made from directionally solidified (DS) or single crystal (SC) alloys and having (in the 001 Miller Index Direction) a stress-rupture life exceeding 400 hours at 1,273 K (1,000 °C) at a stress of 200 MPa, based on the average property values;

a.2. Multiple domed combustors operating at average burner outlet temperatures exceeding 1,813 K (1,540 °C) or combustors incorporating thermally decoupled combustion liners, non-metallic liners or non-metallic shells;

a.3. Components manufactured from any of the following:

a.3.a. Organic "composite" materials designed to operate above 588 K (315 °C);

a.3.b. Metal "matrix" "composite", ceramic "matrix", intermetallic or intermetallic reinforced materials, controlled by 1C007; or

a.3.c. "Composite" material controlled by 1C010 and manufactured with resins controlled by 1C008;

a.4. Uncooled turbine blades, vanes, tip-shrouds or other components, designed to operate at gas path total (stagnation) temperatures of 1,323 K (1,050 °C) or more at sea-level static take-off (ISA) in a 'steady state mode' of engine operation;

a.5. Cooled turbine blades, vanes or tip-shrouds, other than those described in 9E003.a.1, exposed to gas path total (stagnation) temperatures of 1,643 K (1,370 °C) or more at sea-level static take-off (ISA) in a 'steady state mode' of engine operation;

Technical Note: The term 'steady state mode' defines engine operation conditions, where the engine parameters, such as thrust/power, rpm and others, have no appreciable fluctuations, when the ambient air temperature and pressure at the engine inlet are constant.

a.6. Airfoil-to-disk blade combinations using solid state joining;

a.7. Gas turbine engine components using "diffusion bonding" "technology" controlled by 2E003.b;

a.8. Damage tolerant gas turbine engine rotating components using powder metallurgy materials controlled by 1C002.b;

a.9. Full authority digital electronic engine control (FADEC) for gas turbine and combined cycle engines and their related diagnostic components, sensors and specially designed components;

a.10. Adjustable flow path geometry and associated control systems for:

a.10.a. Gas generator turbines;

a.10.b. Fan or power turbines;

a.10.c. Propelling nozzles; or

Note 1: Adjustable flow path geometry and associated control systems in 9E003.a.10 do not include inlet guide vanes, variable pitch fans, variable stators or bleed valves for compressors.

Note 2: 9E003.a.10 does not control "development" or "production" "technology" for adjustable flow path geometry for reverse thrust.

a.11. Hollow fan blades;

b. "Technology" "required" for the "development" or "production" of any of the following:

b.1. Wind tunnel aero-models equipped with non-intrusive sensors capable of transmitting data from the sensors to the data acquisition system; or

b.2. "Composite" propeller blades or propfans, capable of absorbing more than 2,000 kW at flight speeds exceeding Mach 0.55;

c. "Technology" "required" for the "development" or "production" of gas turbine engine components using "laser", water jet, Electro-Chemical Machining (ECM) or Electrical Discharge Machines (EDM) hole drilling processes to produce holes having any of the following:

c.1. All of the following:

c.1.a. Depths more than four times their diameter;

c.1.b. Diameters less than 0.76 mm; and

c.1.c. 'Incidence angles' equal to or less than 25°; or

c.2. All of the following:

- c.2.a. Depths more than five times their diameter;
- c.2.b. Diameters less than 0.4 mm; and
- c.2.c. 'Incidence angles' of more than 25°;

Technical Note: For the purposes of 9E003.c, incidence angle is measured from a plane tangential to the airfoil surface at the point where the hole axis enters the airfoil surface.

d. "Technology" "required" for the "development" or "production" of helicopter power transfer systems or tilt rotor or tilt wing "aircraft" power transfer systems;

e. "Technology" for the "development" or "production" of reciprocating diesel engine ground vehicle propulsion systems having all of the following:

- e.1. 'Box volume' of 1.2 m³ or less;
- e.2. An overall power output of more than 750 kW based on 80/1269/EEC, ISO 2534 or national equivalents; and
- e.3. Power density of more than 700 kW/m³ of 'box volume';

Technical Note: 'Box volume' is the product of three perpendicular dimensions measured in the following way:

Length: The length of the crankshaft from front flange to flywheel face;

Width: The widest of any of the following:

a. The outside dimension from valve cover to valve cover;

b. The dimensions of the outside edges of the cylinder heads; or

c. The diameter of the flywheel housing;

Height: The largest of any of the following:

a. The dimension of the crankshaft centerline to the top plane of the valve cover (or cylinder head) plus twice the stroke; or

b. The diameter of the flywheel housing.

f. "Technology" "required" for the "production" of specially designed components, for high output diesel engines, as follows:

f.1. "Technology" "required" for the "production" of engine systems having all of the following components employing ceramics materials controlled by 1C007:

f.1.a. Cylinder liners;

f.1.b. Pistons;

f.1.c. Cylinder heads; and

f.1.d. One or more other components (including exhaust ports, turbochargers, valve guides, valve assemblies or insulated fuel injectors);

f.2. "Technology" "required" for the "production" of turbocharger systems with single-stage compressors and having all of the following:

f.2.a. Operating at pressure ratios of 4:1 or higher;

f.2.b. Mass flow in the range from 30 to 130 kg per minute; and

f.2.c. Variable flow area capability within the compressor or turbine sections;

f.3. "Technology" "required" for the "production" of fuel injection systems with a specially designed multifuel (e.g., diesel or jet fuel) capability covering a viscosity range from diesel fuel (2.5 cSt at 310.8 K (37.8 °C)) down to gasoline fuel (0.5 cSt at 310.8 K (37.8 °C)) and having all of the following:

f.3.a. Injection amount in excess of 230 mm³ per injection per cylinder; and

f.3.b. Electronic control features specially designed for switching governor characteristics automatically depending on fuel property to provide the same torque characteristics by using the appropriate sensors;

g. "Technology" "required" for the development" or "production" of 'high output diesel engines' for solid, gas phase or liquid film (or combinations thereof) cylinder wall lubrication and permitting operation to temperatures exceeding 723 K (450 °C), measured on the cylinder wall at the top limit of travel of the top ring of the piston;

Technical Note: 'High output diesel engines' are diesel engines with a specified brake mean effective pressure of 1.8 MPa or more at a speed of 2,300 r.p.m., provided the rated speed is 2,300 r.p.m. or more.

h. "Technology" not otherwise controlled in 9E003.a.1 through a.10 and currently used in the "development", "production", or overhaul of hot section parts and components of civil derivatives of military engines controlled on the U.S. Munitions List.

Dated: September 26, 2008.

Christopher R. Wall,

Assistant Secretary for Export Administration.

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This is a continuing list of public bills from the current session of Congress which have become Federal laws. It may be used in conjunction with "PLUS" (Public Laws Update Service) on 202-741-6043. This list is also available online at <http://www.archives.gov/federal-register/laws.html>.

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H.R. 3229/P.L. 110-357

National Infantry Museum and Soldier Center Commemorative Coin Act (Oct. 8, 2008; 122 Stat. 3998)

H.R. 4120/P.L. 110-358

To amend title 18, United States Code, to provide for more effective prosecution of cases involving child pornography, and for other purposes. (Oct. 8, 2008; 122 Stat. 4001)

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Paul D. Wellstone Muscular Dystrophy Community Assistance, Research, and Education Amendments of 2008 (Oct. 8, 2008; 122 Stat. 4010)

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To extend for 5 years the program relating to waiver of the foreign country residence requirement with respect to international medical graduates, and for other purposes. (Oct. 8, 2008; 122 Stat. 4013)

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To extend the waiver authority for the Secretary of Education

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To repeal the provision of title 46, United States Code, requiring a license for employment in the business of salvaging on the coast of Florida. (Oct. 8, 2008; 122 Stat. 4055)

S. 2606/P.L. 110-376

To reauthorize the United States Fire Administration, and for other purposes. (Oct. 8, 2008; 122 Stat. 4056)

S. 2932/P.L. 110-377

Poison Center Support, Enhancement, and Awareness Act of 2008 (Oct. 8, 2008; 122 Stat. 4063)

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QI Program Supplemental Funding Act of 2008 (Oct. 8, 2008; 122 Stat. 4075)

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To provide that funds allocated for community food

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