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The Code of Federal Regulations is sold by the Superintendent of Documents.

DEPARTMENT OF AGRICULTURE

Rural Housing Service

Rural Business-Cooperative Service

Rural Utilities Service

Farm Service Agency

7 CFR Parts 1944, 1955 and 1962

RIN 0575–AC56

Environmental Policies and Procedures; Corrections

AGENCY: Rural Business-Cooperative Service, Rural Housing Service, Rural Utilities Service, Farm Service Agency, USDA.

ACTION: Correcting amendments.

SUMMARY: The Rural Business-Cooperative Service, Rural Housing Service, Rural Utilities Service, and Farm Service Agency published a document in the **Federal Register** on March 2, 2016 (81 FR 11000), entitled ''Environmental Policies and Procedures.'' The rule replaced two existing rules relating to the Agencies' procedures for implementing NEPA. These corrections will replace references in several paragraphs to one of the former rules, 7 CFR part 1940, subpart G, which is now obsolete.

DATES: This rule is effective April 27, 2017.

FOR FURTHER INFORMATION CONTACT: Kellie M. Kubena, Director, Engineering and Environmental Staff, Rural Utilities Service, Stop 1571, 1400 Independence Ave. SW., Washington, DC 20250–1571; email: *Kellie.Kubena@wdc.usda.gov;* telephone: (202) 720–1649.

SUPPLEMENTARY INFORMATION: The Rural Business-Cooperative Service, Rural Housing Service, Rural Utilities Service, and Farm Service Agency published a document in the **Federal Register** on March 2, 2016 (81 FR 11000), entitled ''Environmental Policies and Procedures.'' This document describes the Agencies' procedures for implementing the National Environmental Policy Act (NEPA), and supplanted two former regulations. These corrections will replace references in other regulations to one of the former rules, 7 CFR part 1940, subpart G, which is now obsolete. The following sections will be corrected: §§ 1944.672(g), 1955.10, 1955.63(b), 1955.66, 1955.107(a)(3)(iv), 1955.136(a), 1955.137(a)(3)(i), 1955.139(a)(3)(v), 1955.140(a), 1962.30, and 1962.34(a).

List of Subjects

7 CFR Part 1944

Administrative practice and procedure, Grant programs—Housing and community development, Home improvement, Loan programs—Housing and community development, Migrant labor, Nonprofit organizations, Reporting requirements, Rural housing.

7 CFR Part 1955

Government acquired property, Government property management, Sale of government acquired property, Surplus government property.

7 CFR Part 1962

Agriculture, bankruptcy, drug traffic control, Government property, Loan programs—agriculture, Loan programs—housing and community development, Rural areas.

Accordingly, 7 CFR chapter XVIII is amended by making the following correcting amendments:

PART 1944—HOUSING

■ 1. The authority citation for part 1944 continues to read as follows:

Authority: 5 U.S.C. 301; 42 U.S.C. 1480.

Subpart N—Housing Preservation Grants

■ 2. Revise § 1944.672(g) to read as follows:

§ 1944.672 Environmental review requirements.

* * * * *

(g) Grantees must contact Rural Development prior to actual usage of funds by the grantees under § 1944.664 (c)(11) of this subpart. Rural Development must complete the appropriate level of environmental review in accordance with part 1970 of this chapter.

PART 1955—PROPERTY MANAGEMENT

■ 3. The authority citation for part 1955 continues to read as follows:

Authority: 5 U.S.C. 301; 7 U.S.C. 1989; 42 U.S.C. 1480.

Subpart A—Liquidation of Loans Secured by Real Estate and Acquisition of Real and Chattel Property

■ 4. Revise the eleventh sentence of § 1955.10 to read as follows:

§ 1955.10 Voluntary conveyance of real property by the borrower to the Government.

* * * In addition, prior to acceptance of a voluntary conveyance of farm real property that collateralizes an FP loan, the County Supervisor will remind the borrower-owner of possible deed restrictions and easement that may be placed on the property in the event the property contains wetlands, floodplains, historical sites and/or other federally protected environmental resources as set forth in part 1970 of this chapter and § 1955.137 of this part . * * *

* * * * *

Subpart B—Management of Property

■ 5. Revise the last sentence of paragraph (b) of § 1955.63 to read as follows:

§ 1955.63 Suitability determination.

* * * * *

(b) * * * The environmental effects of such actions will be considered pursuant to part 1970 of this chapter.

* * * * *

■ 6. Amend § 1955.66 by:

■ a. Revising the last sentence of the introductory text; and

■ b. Removing paragraph (a)(2)(iii) and redesignating paragraph (a)(2)(iv) as new paragraph (a)(2)(iii).

§ 1955.66 Lease of real property.

* * * The requirements of part 1970 of this chapter will be met for all leases.

* * * * *

Subpart C—Disposal of Inventory Property

■ 7. Revise the first sentence of § 1955.107(a)(3)(iv) to read as follows:

§ 1955.107 Sale of FSA Property (CONACT).

* * * * *

(a) * * *

(3) * * *

(iv) Property sold on credit sale may not be used for any purpose that will contribute to excessive erosion of highly erodible land or to the conversion of wetlands to produce an agricultural commodity. * * *

* * * * *

■ 8. Revise § 1955.136(a) introductory text to read as follows:

§ 1955.136 Environmental review requirements.

(a) Prior to a final decision on some disposal actions, the action must comply with the environmental review requirements in accordance with the agency's environmental policies and procedures found in 7 CFR part 1970.

* * * * *

■ 9. Revise § 1955.137(a)(3)(i) to read as follows:

§ 1955.137 Real property located in special areas or having special characteristics.

(a) * * *

(3) * * * (i) Financial assistance is limited to property located in areas where flood insurance is available. Flood insurance must be provided at closing of loans on program-eligible and non-program (NP)-ineligible terms. Appraisals of property in flood or mudslide hazard areas will reflect this condition and any restrictions on use. Financial assistance for substantial improvement or repair of property located in a flood or mudslide hazard area is subject to the limitations outlined in 7 CFR part 1970 for Rural Development programs.

* * * * *

■ 10. Revise the second sentence of § 1955.139(a)(3)(v) to read as follows:

§ 1955.139 Disposition of real property rights and title to real property.

* * * * *

(a) * * *

(3) * * *

(v) * * * Examples of instances where an affirmative responsibility exists to place an easement on a farm property include wetland and floodplain conservation easements required by § 1955.137 of this subpart or easements designed as environmental mitigation measures for the purpose of protecting federally designated important environmental resources.

* * *

■ 11. Revise § 1955.140(a) to read as follows:

§ 1955.140 Sale in parcels.

(a) Individual property subdivided. An individual property, other than Farm Loan Programs property, may be offered for sale as a whole or subdivided into parcels as determined by the State Director. For MFH property, guidance will be requested from the National Office for all properties other than RHS projects. When farm inventory property is larger than a family-size farm, the county official will subdivide the property into one or more tracts to be sold in accordance with § 1955.107. Division of the land or separate sales of portions of the property, such as timber, growing crops, inventory for small business enterprises, buildings, facilities, and similar items may be permitted if a better total price for the property can be obtained in this manner. Environmental review requirements must comply with 7 CFR part 1970. Any applicable State laws will be set forth in a State supplement and will be complied with in connection with the division of land. Subdivision of acquired property will be reported on Form RD 1955–3C, ''Acquired Property—Subdivision,'' in accordance with the FMI.

* * * * *

PART 1962—PERSONAL PROPERTY

■ 12. The authority citation for part 1962 continues to read as follows:

Authority: 5 U.S.C. 301; 7 U.S.C. 1989; 42 U.S.C. 1480.

Subpart A—Servicing and Liquidation of Chattel Security

§ 1962.30 [Amended]

■ 13. Amend § 1962.30 to remove paragraph (b)(5) and redesignate paragraphs (b)(6) and (7) as new paragraphs (b)(5) and (6) respectively.

§ 1962.34 [Amended]

■ 14. Amend § 1962.34 to remove paragraph (a)(4) and redesignate paragraphs (a)(5) and (6) as new paragraphs (a)(4) and (5) respectively.

Dated: March 29, 2017.

Roger Glendenning,

Acting Under Secretary, Rural Development.

Dated: February 23, 2017.

Jason Hafemeister,

Acting Deputy Under Secretary, Farm and Foreign Agricultural Services.

[FR Doc. 2017–08529 Filed 4–26–17; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 100

[Docket No. USCG–2013–0327]

Special Local Regulation; Regattas and Marine Parades in the COTP Lake Michigan Zone—Chinatown Chamber of Commerce Dragon Boat Race, Chicago, IL

AGENCY: Coast Guard, DHS.

ACTION: Notice of enforcement of regulation.

SUMMARY: The Coast Guard will enforce the special local regulation on the South Branch of the Chicago River for the Chinatown Chamber of Commerce Dragon Boat Race in Chicago, Illinois. This regulated area will be enforced from 8 a.m. until 5 p.m. on June 24, 2017. This action is necessary and intended to ensure safety of life and property on navigable waters prior to, during, and immediately after the Dragon Boat Race. During the enforcement period, no vessel may enter, transit through, or anchor within the regulated area without the approval from the Captain of the Port or a designated representative.

DATES: The regulation in 33 CFR 100.909 will be enforced from 8 a.m. until 5 p.m. on June 24, 2017.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice of enforcement, call or email LT Lindsay Cook, Waterways Management Division, Marine Safety Unit Chicago, at 630–986–2155, email address *Lindsay.N.Cook@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Coast Guard will enforce a special local regulation in 33 CFR 100.909 from 8 a.m. until 5 p.m. on June 24, 2017, for the Chinatown Chamber of Commerce Dragon Boat Race. This action is being taken to provide for the safety of life on a navigable waterway during the regatta. The Chinatown Chamber of Commerce Dragon Boat Race; Chicago, IL, § 100.909, specifies the location of the regulated area as all waters of the South Branch of the Chicago River from the West 18th St. Bridge at position 41°51′28″ N., 087°38′06″ W. to the Amtrak Bridge at position 41°51′20″ N., 087°38′13″ W. (NAD 83). During the enforcement period, no vessel may transit this regulated area without approval from the Captain of the Port Lake Michigan or a designated representative.

Vessels that obtain prior approval to transit the regulated area are required to

operate at a no wake speed to reduce wake to a minimum, and in a manner which will not endanger participants in the event or any other craft. These rules shall not apply to participants in the event or vessels of the patrol operating in the performance of their assigned duties. The Captain of the Port or a designated representative may direct the anchoring, mooring, or movement of any boat or vessel within the regulated area.

This notice of enforcement is issued under authority of 33 CFR 100.909, Chinatown Chamber of Commerce Dragon Boat Race; Chicago, IL and 5 U.S.C. 552(a). The Coast Guard will provide the maritime community with advance notice of the enforcement of this special local regulation via Broadcast Notice to Mariners and Local Notice to Mariners. The Captain of the Port Lake Michigan, or a designated on-scene representative may be contacted via Channel 16, VHF–FM.

Dated: March 31, 2017.

A.B. Cocanour,

Captain, U.S. Coast Guard, Captain of the Port Lake Michigan.

[FR Doc. 2017–08501 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2017–0213]

Drawbridge Operation Regulation; Hood Canal, Port Gamble, WA

AGENCY: Coast Guard, DHS.

ACTION: Notice of deviation from drawbridge regulation.

SUMMARY: The Coast Guard has issued a temporary deviation from the operating schedule that governs the Hood Canal Floating Drawbridge across Hood Canal (Admiralty Inlet), mile 5.0, near Port Gamble, WA. This deviation is necessary to accommodate replacement of the draw span operating equipment. The deviation allows the bridge to open the draw half-way, 300 feet; as opposed to a full opening, which is 600 feet. The deviation also requires the draw to open on signal if at least four hours notice is given.

DATES: This deviation is effective from 6 a.m. on May 1, 2017, to 7 p.m. on September 30, 2017.

ADDRESSES: The docket for this deviation, USCG–2017–0213 is available at *http://www.regulations.gov.* Type the docket number in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this deviation.

FOR FURTHER INFORMATION CONTACT: If you have questions on this temporary deviation, call or email Mr. Steven Fischer, Bridge Administrator, Thirteenth Coast Guard District; telephone 206–220–7282, email *d13-pf-d13bridges@uscg.mil.*

SUPPLEMENTARY INFORMATION: The Washington Department of Transportation (WSDOT) has requested a temporary deviation from the operating schedule of the Hood Canal Floating Drawbridge be allowed to only open half of the draw span to facilitate safe and uninterrupted draw span equipment replacement. The Hood Canal Floating Drawbridge crosses Hood Canal, mile 5.0, near Port Gamble, WA. The bridge has two fixed spans (east and west), and one draw span (center). The east span provides 50 feet of vertical clearance, the west span provides 35 feet of vertical clearance and the center span provides zero feet of vertical clearance in the closed-to-navigation position. The center span provides unlimited vertical clearance in the open-to-navigation position. Vertical clearances are referenced to mean high-water elevation. The deviation period allows the center span of the Hood Canal Floating Drawbridge across Hood Canal, mile 5.0, to only open half-way after contact the bridge operator has been at least four hours prior to signaling for an opening from 6 a.m. on May 1, 2017, until 7 p.m. on September 30, 2017.

During the time of the deviation, the drawbridge will not be able to operate according to the normal operating schedule. The normal operating schedule for the bridge is in accordance with 33 CFR 117.1045. The bridge shall operate in accordance to 33 CFR 117.1045 at all other times. Waterway usage on this part of Hood Canal includes commercial tugs and barges, U.S. Navy and U.S. Coast Guard vessels, and small pleasure craft. Coordination has been completed with known waterway users, and no objections to the deviation have been received.

Vessels able to pass through the east and west spans may do so at any time. The center span does not provide passage in the closed-to-navigation position. The bridge will be able to open half the center span for Navy and Coast Guard vessels during emergencies, when at least a one hour notice has been given by the Department of the Navy or U.S. Coast Guard. The Coast Guard will also inform the users of the waterways through our Local and Broadcast Notices to Mariners of the change in operating schedule for the bridge so that vessels can arrange their transits to minimize any impact caused by the temporary deviation.

In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation. This deviation from the operating regulations is authorized under 33 CFR 117.35.

Dated: April 21, 2017.

Steven Fischer,

Chief, Bridge Program, Thirteenth Coast Guard District.

[FR Doc. 2017–08502 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2017–0291]

Drawbridge Operation Regulation; Reynolds Channel, Long Beach, NY

AGENCY: Coast Guard, DHS.

ACTION: Notice of deviation from drawbridge regulation.

SUMMARY: The Coast Guard has issued a temporary deviation from the operating schedule that governs the Long Beach Bridge across Reynolds Channel, mile 4.7, at Long Beach, New York. This deviation is necessary in order to facilitate an annual fireworks display and allows the bridge to remain in the closed position for one hour.

DATES: This deviation is effective from 9:30 p.m. on July 7, 2017 to 10:30 p.m. on July 9, 2017.

ADDRESSES: The docket for this deviation, USCG–2017–0291 is available at *http://www.regulations.gov.* Type the docket number in the ''SEARCH'' box and click ''SEARCH''. Click on Open Docket Folder on the line associated with this deviation.

FOR FURTHER INFORMATION CONTACT: If you have questions on this temporary deviation, call or email James M. Moore, Bridge Management Specialist, First District Bridge Branch, U.S. Coast Guard; telephone 212–514–4334, email *james.m.moore2@uscg.mil.*

SUPPLEMENTARY INFORMATION: The City of Long Beach Police Department requested and the bridge owner, Nassau County of Public Works, concurred with a temporary deviation request from the

normal operating schedule to facilitate a public fireworks event.

The Long Beach Bridge, mile 4.7, across Reynolds Channel, has a vertical clearance of 22 feet at mean high water and 24 feet at mean low water in the closed position. The existing drawbridge operating regulations are listed at 33 CFR 117.799(g).

This temporary deviation will allow the Long Beach Bridge to remain closed from 9:30 p.m. through 10:30 p.m. on July 7, 2017 with rain dates of July 8, 2017 and July 9, 2017. The waterway is used primarily by seasonal recreational vessels and occasional tug/barge traffic. Coordination with waterway users has indicated no objections to this short-term closure of the draw.

Vessels that can pass under the bridge without an opening may do so at all times. The bridge will be able to open for emergencies. There is no alternate route for vessels to pass.

The Coast Guard will also inform the users of the waterways through our Local and Broadcast Notices to Mariners of the change in operating schedule for the bridge so that vessel operators can arrange their transits to minimize any impact caused by the temporary deviation.

In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation. This deviation from the operating regulations is authorized under 33 CFR 117.35.

Dated: April 24, 2017.

C.J. Bisignano,

Supervisory Bridge Management Specialist, First Coast Guard District.

[FR Doc. 2017–08504 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2017–0245]

Drawbridge Operation Regulation; York River, Yorktown, VA

AGENCY: Coast Guard, DHS.

ACTION: Notice of deviation from drawbridge regulations.

SUMMARY: The Coast Guard has issued a temporary deviation from the operating schedule that governs the Coleman Memorial (US 17) Bridge which carries US 17 across the York River, mile 7.0, at Yorktown, VA. The deviation is necessary to facilitate bridge maintenance. This deviation allows the bridge to remain in the closed-to-navigation position.

DATES: The deviation is effective from 5:30 a.m. on Sunday, May 7, 2017, through 8 a.m. on Sunday, May 14, 2017.

ADDRESSES: The docket for this deviation, [USCG–2017–0245] is available at *http://www.regulations.gov.* Type the docket number in the ''SEARCH'' box and click ''SEARCH''. Click on Open Docket Folder on the line associated with this deviation.

FOR FURTHER INFORMATION CONTACT: If you have questions on this temporary deviation, call or email Mr. Michael Thorogood, Bridge Administration Branch Fifth District, Coast Guard, telephone 757–398–6557, email *Michael.R.Thorogood@uscg.mil.*

SUPPLMENTARY INFORMATION: The Virginia Department of Transportation, owner and operator of the Coleman Memorial (US 17) Bridge, that carries US 17 across the York River, mile 7.0, at Yorktown, VA, has requested a temporary deviation from the current published schedule to test the manual operating capabilities of each swing span of the drawbridge. The bridge has a vertical clearance of 60 feet above mean high water (MHW) in the closed position and unlimited vertical clearance in the open position. The current operating schedule is set out in 33 CFR 117.1025. Under this temporary deviation, the bridge will be in the closed-to-navigation position from 5:30 a.m. to 8 a.m., on Sunday, May 7, 2017; with an alternative date on Sunday, May 14, 2017.

The York River is used by a variety of vessels including recreational, tug and barge traffic, fishing vessels, and small commercial vessels. The Coast Guard has carefully coordinated the restrictions with waterway users in publishing this temporary deviation.

Vessels able to pass through the bridge in the closed-to-navigation position may do so at any time. The bridge will be able to open for emergencies, if at least 30 minutes notice is given, and there is no immediate alternative route for vessels unable to pass through the bridge in the closed position. The Coast Guard will also inform the users of the waterway through our Local Notice and Broadcast Notices to Mariners of the change in operating schedule for the bridge so that vessel operators can arrange their transits to minimize any impact caused by the temporary deviation.

In accordance with 33 CFR 117.35(e), the drawbridge must return to its regular operating schedule immediately at the end of the effective period of this temporary deviation. This deviation from the operating regulations is authorized under 33 CFR 117.35.

Dated: April 21, 2017.

Hal R. Pitts,

Bridge Program Manager, Fifth Coast Guard District.

[FR Doc. 2017–08503 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[CG Docket Nos. 10–51 and 03–123; DA 17–76]

Structure and Practices of the Video Relay Services Program

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission's Consumer and Governmental Affairs Bureau (Bureau or CGB), pursuant to delegated authority, adopts amendments to the Commission's telecommunications relay services (TRS) rules to incorporate technical standards to improve the interoperability and portability of services, equipment, and software used for video relay services (VRS) to enhance functional equivalence and VRS availability for consumers, ease of compliance by providers, and overall efficiency in the operation of VRS.

DATES: *Effective Date:* This rule is effective as of May 30, 2017. The incorporation by reference of certain publications listed in the rules is approved by the Director of the Federal Register as of May 30, 2017.

Compliance Dates: The compliance date for the VRS Provider Interoperability Profile is August 25, 2017. The compliance date for the Relay User Equipment (RUE) Profile is April 27, 2018. The compliance date for contact lists and speed dial lists is October 24, 2017.

FOR FURTHER INFORMATION CONTACT: Bob Aldrich, Consumer and Governmental Affairs Bureau (202) 418–0996, email *Robert.Aldrich@fcc.gov,* or Eliot Greenwald, Consumer and Governmental Affairs Bureau, (202) 418–2235, email *Eliot.Greenwald@fcc.gov.*

SUPPLEMENTARY INFORMATION: This is a summary of *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and*

Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Report and Order, document DA 17–76, adopted on January 17, 2017, and released on January 17, 2017, in CG Docket Nos. 10–51 and 03–123. The Further Notice of Proposed Rulemaking, DA 17–76, is published elsewhere in this issue. The full text of document DA 17–76 will be available for public inspection and copying via ECFS, and during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY–A257, Washington, DC 20554. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (844) 432–2272 (videophone), or (202) 418–0432 (TTY).

Incorporation by Reference

The Office of the Federal Register (OFR) requires that agencies must discuss in the preamble of a final rule ways that the materials the agency is incorporating by reference are reasonably available to interested parties. In addition, the preamble of the final rule must summarize the material. The US VRS Provider Profile TWG–6–1, the US Video Relay Service (VRS) Provider Interoperability Profile, Version 15, (2015) (VRS Provider Interoperability Profile), provides technical specifications for the interface between VRS providers and the interface between a VRS provider and the TRS Numbering Directory. The document is available from the Federal Communications Commission, 445 12th Street SW., Washington, DC 20554, (202) 418–0270, *https://www.fcc.gov/files/sip-forum-vrs-us-providers-profile-twg-6-1.* The Interoperability Profile for Relay User Equipment, draft-vrs-rue-dispatch-00 (2016) (RUE Profile), provides technical specifications that define a standard interface between a relay user's equipment and the services offered by relay service providers. The document is available from IETF Secretariat, 5177 Brandin Court, Fremont, CA 94538, 510–492–4080, *https://datatracker.ietf.org/doc/draft-vrs-rue-dispatch.* Request for Comments (RFC) 6351, xCard: vCard XML Representation (2011) (xCard XML Format), specifies a standard data interchange format for exporting and importing user personal contacts lists (*i.e.,* address books) and user speed dial lists. The document is available from IETF Secretariat, 5177 Brandin Court, Fremont, CA 94538, 510–492–4080, *https://tools.ietf.org/html/rfc6351.* In addition, all of the above documents are available for inspection at the Federal Communications Commission, 445 12th Street SW., Reference Information Center, Room CYA257, Washington, DC 20554, (202) 418–0270.

Congressional Review Act

The Commission will send a copy of document DA 17–76 to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

Final Paperwork Reduction Act of 1995 Analysis

Document DA 17–76 does not contain any new or modified information collection requirements subject to the Paperwork Reduction Act of 1995, Public Law 104–13. In addition, therefore, it 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, *see* 44 U.S.C. 3506(c)(4).

Synopsis

1. In document DA 17–76, the Bureau pursuant to delegated authority provided by the Commission in the *Structure and Practices of the Video Relay Service Program, et al.,* Report and Order, published at 78 FR 40582, July 5, 2013 (2013 VRS Reform Order), amends the Commission's telecommunication relay service (TRS) rules to incorporate by reference certain technical standards for the interoperability and portability of services, equipment, and software used for video relay service (VRS). In August 2015, the VRS Task Group of the Session Initiation Protocol (SIP) Forum completed a technical standard addressing interoperability between VRS providers, entitled the US VRS Provider Interoperability Profile (VRS Provider Interoperability Profile). Subsequently, the VRS providers formed another group, the Relay User Equipment Forum (RUE Forum), which published a second technical standard addressing interoperability between a VRS provider and user equipment and software, entitled the Interoperability Profile for RUE Profile.

VRS Provider Interoperability Profile

2. The VRS Provider Interoperability Profile provides technical specifications for the interface between two VRS providers, as well as the interface between a VRS provider and the TRS Numbering Directory. The TRS Numbering Directory is a database that enables the routing of VRS and point-to-point video calls that originate and terminate with different VRS providers. The Bureau concludes that the VRS Provider Interoperability Profile will advance the Commission's goals of ensuring interoperability and portability and will ''advance the statutory functional equivalency mandate [and] improve the availability of TRS, in the most efficient manner,'' in accordance with the 2013 VRS Reform Order. Specifically, this standard will provide a common framework for provider compliance and specific criteria for assessing such compliance and will thereby increase the certainty that all VRS users can place and receive calls through any VRS provider and make point-to-point calls to all other VRS users, irrespective of the default provider of the parties to the call, and without the caller having to change the VRS access technology used to make such calls. The Bureau therefore adopts the proposal to incorporate the VRS Provider Interoperability Profile by reference.

RUE Profile

3. The RUE Profile provides technical specifications that define a standard interface between a relay user's equipment and the services offered by relay service providers. The RUE Profile thus addresses a number of technical issues not governed by the VRS Provider Interoperability Profile. By specifying a basic interface that is usable with any provider, so that a user can freely access any provider and switch to a different default provider, without the need to change equipment or software and without experiencing any inconvenience or disruption of communications functions, the RUE Profile appears to advance the goal of full functional equivalence, potentially allowing VRS consumers the same degree of equipment portability that wireline voice communications users have enjoyed for decades. Although the Consumer Groups support the incorporation by reference of the RUE Profile in the VRS interoperability rule, VRS providers claim that the purpose of the RUE Profile, as developed, is limited to defining an interface between user equipment utilizing the VRS access technology reference platform, now known as the Accessible Communications for Everyone (ACE) Application, or ''ACE App,'' and VRS providers' networks. They contend that a rule requiring all provider-distributed VRS user hardware and software to comply with the RUE Profile would impose major costs and burdens on VRS providers.

4. In document DA 17–76, the Bureau incorporates the RUE Profile by reference into the interoperability rule, but on a limited basis that preserves providers' flexibility to continue offering user equipment and software that does not conform to the RUE Profile in all respects, pending further determinations in this proceeding. The Bureau recognizes the concerns raised by the providers that immediate application of the RUE Profile as a whole to all user equipment and software may not be feasible without resulting in significant disruption of existing user arrangements. Accordingly, the rule the Bureau adopts requires VRS providers to comply with the RUE Profile only for purposes of ensuring provider interoperability with the ACE App. The Bureau defers to the Further Notice of Proposed Rulemaking the question of to what extent, and on what timetable, the RUE Profile should be more broadly applied to existing and prospective access technology offered by providers.

5. The Commission previously amended its rules to require VRS providers to ''ensure that their VRS access technologies and their video communications service platforms are interoperable with the [ACE App].'' To ensure that the ACE App interoperability requirement is enforceable, the Bureau adopts a rule that incorporates the RUE Profile by reference into the existing rule requiring interoperability between provider services and the ACE App. As the Bureau expects that the ACE App will be released in the near future in a version suitable for interoperability testing, the Bureau concludes that it is reasonable to allow one year for VRS providers to complete software development, testing, and deployment to ensure that their networks are interoperable with the ACE App.

Contact Lists and Speed Dial Lists

6. In the 2013 VRS Reform Order, the Commission mandated that standards for the transfer of users' contact and speed dial lists be broadly applicable to all VRS access technologies. The RUE Profile specifies such a standard data interchange format, RFC 6351, the xCard XML Format.

7. Accordingly, the Bureau amends the rules to incorporate into the existing interoperability and portability rules the xCard specification referenced in the RUE Profile.

Updating the Standards

8. The Bureau adopts the following procedure for incorporating amendments or changes to the VRS Provider Interoperability Profile and the RUE Profile into the Commission's rules in a timely and efficient manner. Under this procedure, CGB will make the updated standard available to the public online and issue a public notice seeking comment on such modifications, followed by an order incorporating into the VRS rules amendments or changes by reference if justified based on the resulting record. When such revised standards are completed and accepted by the Bureau, a second public notice will be issued containing information on how to access the modified standards and establishing an implementation schedule.

Final Regulatory Flexibility Analysis

9. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Bureau incorporated an Initial Regulatory Flexibility Analysis (IRFA) into Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Further Notice of Proposed Rulemaking, published at 81 FR 57851, August 24, 2016 (August FNPRM). The Commission sought written public comment on the proposals in the August FNPRM, including comment on the IRFA. No comments were received on the IRFA.

Need for, and Objectives of, the Proposed Rules

10. In document DA 17–76, the TRS rules are amended to incorporate by reference the technical standards for interoperability and portability of VRS services and equipment developed by the SIP Forum's VRS Task Group and a successor group, the RUE Forum.

11. The VRS Provider Interoperability Profile provides technical specifications for the interface between two VRS providers, as well as the interface between a VRS provider and the TRS Numbering Directory. The Bureau concludes that incorporation of the VRS Provider Interoperability Profile will advance the Commission's goals of ensuring interoperability and portability, as required by the *2013 VRS Reform Order,* by providing a common framework for interoperability compliance and specific criteria for assessing such compliance.

12. The RUE Profile specifies a technical standard for the interface between a provider and user software. Because the Commission mandated that standards for the transfer of users' contact and speed dial lists be broadly applicable to all VRS access technologies, the Bureau amends the interoperability rule to incorporate by reference the xCard specification referenced in the RUE Profile. Further, the Bureau incorporates the complete RUE Profile into the requirement that VRS providers ''ensure that their VRS access technologies and their video communications service platforms are interoperable with the [ACE App].''

13. In addition, document DA 17–76 adopts a process that will readily enable revisions to this rule to reflect future amendments or changes in these standards by issuing a public notice seeking comment on such modifications, followed by an order incorporating into the VRS rules amendments or changes by reference if justified based on the resulting record, after which a second public notice will be issued containing information on how to access the modified standards online and establishing an implementation schedule.

Summary of Significant Issues Raised by Public Comments in Response to the IRFA

14. No comments were filed in response to the IRFA.

Listing of Small Entities Impacted

15. The rules adopted in document DA 17–76 will affect obligations of providers of VRS. Affected small entities as defined by industry are as follows.

- All Other Telecommunications.
- VRS Providers, which are generally classified within the broad category of ''All Other Telecommunications.''

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

16. The rule changes adopted in the document DA 17–76 modify rules governing compliance obligations. Specifically, VRS providers must modify their networks, *e.g.,* their protocols for routing calls to other providers and for enabling users to import contact lists, as necessary to conform to the technical standards incorporated into the existing TRS interoperability rules.

17. Steps Taken To Minimize Significant Impact on Small Entities and Significant Alternatives Considered

18. In general, alternatives to final rules are discussed only when those rules pose a significant adverse economic impact on small entities. In this context, however, the proposed rules generally confer benefits. In particular, technical standards for interoperability benefit the smaller VRS providers because consumers find the services of smaller providers to be more

attractive when these services are interoperable than when they are not interoperable. These benefits outweigh any burdens associated with compliance. Moreover, because all of the VRS providers participated in the discussions associated with the development of the standards, the Bureau believes that these standards are acceptable to all VRS providers, including small entities. Further, to minimize any adverse impact on VRS providers, the Bureau adopted an alternative that narrows the scope of application of the technical standard for the interface between provider networks and user equipment and software, so that it governs only the interface between a provider's network and user equipment that employs designated open-source user software, rather than all user equipment and software. Lastly, document DA 17–76 allows extended implementation periods to ensure that providers have sufficient time to implement the standards.

Ordering Clauses

Pursuant to sections 1, 2, 4(i), 4(j), 225 and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 154(j), 225, 303(r), and the authority delegated by the Commission in *Structure and Practices of the Video Relay Service Program et al.,* Report and Order, published at 78 FR 40582, July 5, 2013, document DA 17–76 *is adopted,* and part 64 of the Commission's rules *is amended.*

The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of document DA 17–76, including the Final Regulatory Flexibility Analysis to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 64

Incorporation by reference, Individuals with disabilities, Telecommunications relay services, Video relay services.

Federal Communications Commission.

Karen Peltz Strauss,

Deputy Bureau Chief, Consumer and Governmental Affairs Bureau.

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 part 64 as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

■ 1. The authority citation for part 64 is revised to read as follows:

Authority: 47 U.S.C. 154, 225, 254(k); 403(b)(2)(B), (c), 715, Pub. L. 104–104, 110 Stat. 56. Interpret or apply 47 U.S.C. 201, 218, 222, 225, 226, 227, 228, 254(k), 616, 620, and the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112–96, unless otherwise noted.

■ 2. Amend § 64.621 by:

■ a. In paragraph (a)(1), removing the first instance of ''VRS'' and adding in its place ''Video Relay Service (VRS)'';

■ b. Revising paragraph (a)(3); and

■ c. Adding paragraphs (b) and (c) to read as follows:

§ 64.621 Interoperability and portability.

(a) * * *

(3) Beginning no later than April 27, 2018, all VRS providers must ensure that their VRS access technologies and their video communication service platforms are interoperable with the VRS Access Technology Reference Platform, including for point-to-point calls, in accordance with the Interoperability Profile for Relay User Equipment (RUE Profile). No VRS provider shall be compensated for minutes of use involving their VRS access technologies or video communication service platforms that are not interoperable with the VRS Access Technology Reference Platform.

* * * * *

(b) *Technical standards for interoperability and portability.* (1) Beginning no later than August 25, 2017, VRS providers shall ensure that their provision of VRS and video communications, including their access technology, meets the requirements of the VRS Provider Interoperability Profile.

(2) Beginning no later than October 24, 2017, VRS providers shall provide a standard xCard export interface to enable users to import their lists of contacts in xCard XML format, in accordance with IETF RFC 6351.

(c) *Incorporation by reference.* The standards required in this section are incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at the Federal Communications Commission (FCC), 445 12th Street, SW., Reference Information Center, Room CY–A257, Washington, DC 20554, (202) 418–0270, and is available from the sources indicated below. It is also available for inspection at 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.htm.*

(1) FCC (on behalf of SIP Forum), 445 12th Street SW., Washington, DC 20554, (888) 225–5322 (voice), (844) 432–2275 (videophone), (888) 835–5322 (TTY).

(i) VRS US Providers Profile TWG–6.1, the US VRS Provider Interoperability Profile, September 23, 2015. *https://www.fcc.gov/files/sip-forum-vrs-us-providers-profile-twg-6-1.*

(ii) [Reserved]

(2) The following standards are available from the Internet Engineering Task Force (IETF) Secretariat, 5177 Brandin Court, Fremont, CA 94538, 510–492–4080.

(i) The Interoperability Profile for Relay User Equipment, draft-vrs-rue-dispatch-00, July 20, 2016 *https://datatracker.ietf.org/doc/draft-vrs-rue-dispatch/.*

(ii) Request for Comments (RFC) 6351, xCard: vCard XML Representation (August 2011) *https://tools.ietf.org/html/rfc6351.*

[FR Doc. 2017–08488 Filed 4–26–17; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 190

[Docket No. PHMSA–2016–0010; Amdt. No. 190–17]

RIN–2137–AF16

Pipeline Safety: Inflation Adjustment of Maximum Civil Penalties

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The Pipeline and Hazardous Materials Safety Administration (PHMSA) is revising references in its regulations to the maximum civil penalties for violations of Federal pipeline safety laws, or any PHMSA regulations or orders issued thereunder. Under the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, which further amended the Federal Civil Penalties Inflation Adjustment Act of 1990, Federal agencies are required to adjust their civil monetary penalties effective January 15, 2017, and annually thereafter, to account for changes in inflation.

PHMSA finds good cause to amend the regulations related to civil penalties without notice or opportunity for public comment. Advance public notice is

unnecessary for the reasons described in the **SUPPLEMENTARY INFORMATION** section.

DATES: The effective date of this final rule is April 27, 2017.

FOR FURTHER INFORMATION CONTACT: Ahuva Battams, Attorney-Advisor, Pipeline Safety Division, Office of Chief Counsel, the Pipeline and Hazardous Materials Safety Administration, by telephone at 202–366–4400 or email at *ahuva.battams@dot.gov.*

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I. Civil Penalty Amendments

On June 30, 2016, PHMSA published an interim final rule, (81 FR 42564) in the **Federal Register**. Under the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2015 (the 2015 Act), Public Law 114–74, and consistent with the process outlined in the Office of Management and Budget's (OMB) Memorandum for the Heads of Executive Departments and Agencies: ''Implementation of the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015,'' M–16–06 (OMB Memorandum M–16–06), the interim final rule stated that PHMSA is revising references in its regulations to the maximum civil penalties for violations of Federal pipeline safety laws, or any PHMSA regulations or orders issued thereunder.

Pursuant to the 2015 Act, and consistent with the process outlined in the OMB memorandum titled ''Memorandum for the Heads of Executive Departments and Agencies: Implementation of the 2017 annual adjustment pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015,'' M–17–11 (OMB Memorandum M–17–11), PHMSA is again revising references in these regulations to the maximum civil penalties for violations. Based on the cost-of-living adjustment multiplier for 2017, derived from the Consumer Price Index (CPI–U) for the month of October 2016 (not seasonally adjusted), a multiplier of 1.01636 was used to calculate updated maximum civil penalty amounts.

The revised penalties are as follows:

Violated statute	CFR citation	Current maximum civil penalty	Revised maximum civil penalty
49 U.S.C. 60101 et seq., and any regulation or order issued thereunder.	49 CFR 190.223(a)	$205,638 for each violation for each day the violation continues, with a maximum penalty not to exceed $2,056,380 for a related series of violations.	$209,002 for each violation for each day the violation continues, with a maximum penalty not to exceed $2,090,022 for a related series of violations.
49 U.S.C. 60103; 49 U.S.C. 60111.	49 CFR 190.223(c)	A penalty not to exceed $75,123 which may be in addition to other penalties under 40 U.S.C. 60101, et seq.	An administrative civil penalty not to exceed $76,352, which may be in addition to other penalties assessed under 49 U.S.C. 60101, et seq.
49 U.S.C. 60129	49 CFR 190.223(d)	A penalty not to exceed $1,194	A penalty not to exceed $1,214.

The 2015 Act only applies to prospective penalties and does not retrospectively change any civil penalties previously assessed or enforced. Further, under the 2015 Act, PHMSA is required to publish annual inflation adjustments for each penalty levied under 49 U.S.C. 60101, *et seq.,* in the **Federal Register** no later than January 15 of each year.

The 2015 Act does not alter PHMSA's existing authority to assess penalties levied for violations under 49 U.S.C. 60101, *et seq.* Additionally, if future penalties or penalty adjustments are enacted by statute or regulation, PHMSA will not adjust these penalties for inflation in the first year after the penalties are in effect. PHMSA will apply new annual penalty levels to any penalties assessed on or after the date these new penalty levels take effect.

II. Justification for Final Rule

PHMSA is proceeding directly to a final rule without providing a notice of proposed rulemaking or an opportunity for public comment. This action is permitted, in part, because the 2015 Act directs PHMSA to adjust the civil monetary penalties in accordance with the schedule provided in the 2015 Act, notwithstanding the notice and public comment procedures in the Administrative Procedure Act (APA). However, PHMSA also notes that the APA authorizes agencies to forego providing the opportunity for prior public notice and comment if an agency finds good cause that notice and public procedure are ''impracticable, unnecessary, or contrary to the public interest'' (5 U.S.C. 553(b)(3)(B)). In this instance, public comment is unnecessary because by making these technical amendments, PHMSA is not exercising discretion in a way that could be informed by public comment. PHMSA is required under the 2015 Act and directed by the OMB Guidance to publish this final rule by January 15, 2017, with the penalty levels stated herein slated to take effect on that date. Further, PHMSA is mandated by the 2015 Act and directed by the OMB Guidance to adjust the penalty levels pursuant to the specific procedures also stated herein. Any public comments received through notice and public procedure would therefore not affect PHMSA's obligation to comply with the 2015 Act, nor would they affect the methods used by PHMSA to adjust the penalty levels.

III. Rulemaking Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the authority of the 2015 Act, as well 49 U.S.C. 60101, *et seq.* These statutes provide PHMSA with the authority to levy civil penalties for violations of Federal pipeline safety laws. The 2015 Act requires penalties levied by Federal agencies pursuant to these laws to be adjusted. Beginning in January 2017, the 2015 Act requires such penalties to be adjusted on an annual basis no later than January 15 of each year.

B. Executive Orders 12866 and 13563, and Department of Transportation (DOT) Regulatory Policies and Procedures

This final rule has been evaluated in accordance with existing DOT policies and procedures and determined to be non-significant under Executive Order 12866, Regulatory Planning and Review, 58 FR 51735 (October 4, 1993), and Executive Order 13563, Improving Regulation and Regulatory Review, 76 FR 3821 (January 21, 2011). Consistent with guidance in OMB Memorandum M–17–11, this final rule is considered to be a non-significant regulatory action under Executive Order 12866. Further, this final rule is not significant under the regulatory policies and procedures of the DOT because it is limited to a ministerial act in which the agency has no discretion and where the economic impact of the final rule is minimal (44 FR 11034). Accordingly, preparation of a regulatory evaluation is not warranted.

This final rule imposes no new costs upon persons conducting operations in compliance with Federal pipeline statutes and regulations. Those operators not in compliance with these statues and regulations may experience an increased cost based on the penalties levied against them for non-compliance; however, this is an avoidable, variable cost and thus is not considered in any evaluation of the significance of this regulatory action. The amendments in this final rule could provide a deterrent effect that could potentially lead to safety benefits; however, PHMSA does not expect such benefits to be significant. Overall, it is anticipated that costs and benefits from this final rule would be minimal in real dollars.

C. Executive Order 13132

PHMSA has analyzed this final rule according to Executive Order 13132 on Federalism, 64 FR 43255 (August 10, 1999). The final rule does not have a substantial direct effect on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. The final rule neither imposes substantial direct compliance costs on State and local governments nor preempts state law governing intrastate pipelines. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 on consultation and coordination with Indian tribal governments, 65 FR 67249 (November 9, 2000). Because the final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Executive Order 13211

This final rule is not a ''significant energy action'' under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use, 66 FR 28355 (May 22, 2001). It is not likely to have a significant adverse effect on supply, distribution, or energy use. Further, the Office of Information and Regulatory Affairs (OIRA) within OMB has not designated this final rule as a significant energy action.

F. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act, 5 U.S.C. 601–611, requires each agency to analyze proposed regulations and assess their impact on small businesses and other small entities to determine whether this final rule is expected to have a significant impact on a substantial number of small entities. The provisions of this final rule may apply specifically to all businesses using pipelines to transport hazardous liquids, gas, and liquefied natural gas (LNG) in interstate commerce. Therefore, PHMSA certifies this final rule would not have a significant economic impact on a substantial number of small entities.

G. Paperwork Reduction Act

This final rule imposes no new requirements for recordkeeping or reporting.

H. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995, Public Law 104–4. It does not result in costs of $100 million or more (adjusted for inflation) in any year for either State, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the final rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended, requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment (42 U.S.C. 4321–4375). When developing potential regulatory requirements, PHMSA evaluates those requirements to consider the environmental impact of these amendments. Specifically, PHMSA evaluates the risk of release and resulting environmental impact; the risk to human safety, including any risk to first responders; if the proposed regulation would be carried out in a defined geographic area; and the resources, especially in environmentally sensitive areas, that could be impacted by any proposed regulations.

This final rule would be generally applicable to pipeline operators, and would not be carried out in a defined geographic area. The adjusted, increased civil penalties listed in this final rule may act as a deterrent to those violating Federal pipeline safety laws, or any PHMSA regulations or orders issued thereunder. This may result in a positive environmental impact as a result of increased compliance with Federal pipeline safety laws and any PHMSA regulations or orders issued thereunder. Based on the above discussion, PHMSA concludes there are no significant environmental impacts associated with this final rule.

J. Executive Order 13609 and International Trade Analysis

Under Executive Order 13609, Promoting International Regulatory Cooperation, agencies must consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally, 77 FR 26413 (May 4, 2012). In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of

international standards so long as the standards have a legitimate domestic objective—such as providing for safety—and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, using them as the basis for U.S. standards.

PHMSA participates in the establishment of international standards in order to protect the safety of the American public, and we have assessed the effects of this final rule to ensure that it does not cause unnecessary obstacles to foreign trade. Accordingly, this final rule is consistent with Executive Order 13609 and PHMSA's obligations.

K. Privacy Act

Anyone is able to search the electronic form of written communications and comments received into our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement, published on April 11, 2000 (65 FR 19476), in the **Federal Register** at: *https://www.gpo.gov/fdsys/pkg/FR-2000-04-11/pdf/00-8505.pdf.*

L. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in the spring and fall of each year. The RIN contained in the heading of this document can be used to cross-reference this action in the Unified Agenda.

M. Executive Order 13609 and International Trade Analysis

Sections 3 and 4 of Executive Order 13609 direct an agency to conduct a regulatory analysis and ensure that a proposed rule does not cause unnecessary obstacles to foreign trade. This requirement applies if a rule constitutes a significant regulatory action, or if a regulatory evaluation must be prepared for the rule. This interim final rule is not a significant regulatory action, but a regulatory action under Section 3(e) of Executive Order 12866. PHMSA is not required under Executive Orders 12866 and 13563 to submit a regulatory analysis.

List of Subjects in 49 CFR Part 190

Administrative practice and procedure, Penalties, Pipeline safety.

Accordingly, the interim rule amending 49 CFR part 190 which was published at 81 FR 42564 on June 30, 2016, is adopted as a final rule with the following changes:

PART 190—PIPELINE SAFETY ENFORCEMENT AND REGULATORY PROCEDURES

■ 1. The authority citation for part 190 continues to read as follows:

Authority: 33 U.S.C. 1321(b); 49 U.S.C. 60101 *et seq.;* 49 CFR 1.97; Pub. L. 114–74, section 701; Pub. L. No: 112–90, section 2; Pub. L. 101–410, sections 4–6.

■ 2. In § 190.223 paragraphs (a), (c), and (d) are revised to read as follows:

§ 190.223 Maximum penalties.

(a) Any person found to have violated a provision of 49 U.S.C. 60101, *et seq.,* or any regulations or orders issued thereunder, is subject to an administrative civil penalty not to exceed $209,002 for each violation for each day the violation continues, with a maximum administrative civil penalty not to exceed $2,090,022 for any related series of violations.

* * * * *

(c) Any person found to have violated any standard or order under 49 U.S.C. 60103 is subject to an administrative civil penalty not to exceed $76,352, which may be in addition to other penalties to which such person may be subject under paragraph (a) of this section.

(d) Any person who is determined to have violated any standard or order under 49 U.S.C. 60129 is subject to an administrative civil penalty not to exceed $1,214, which may be in addition to other penalties to which such person may be subject under paragraph (a) of this section.

* * * * *

Issued in Washington, DC, on April 24, 2017, under authority delegated in 49 CFR 1.97.

Howard W. McMillan,

Administrator.

[FR Doc. 2017–08530 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–60–P

Proposed Rules

Federal Register
Vol. 82, No. 80
Thursday, April 27, 2017

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 71

[Docket No. FAA–2017–0258; Airspace Docket No. 16–AWP–15]

Proposed Amendment of Class E Airspace; Colorado City, AZ

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: This action proposes to modify Class E airspace extending upward from 700 feet above the surface at Colorado City Municipal Airport, Colorado City, AZ, to support the implementation of new Area Navigation (RNAV) Global Positioning System (GPS) standard instrument approach procedures for instrument flight rules (IFR) operations at the airport. Also, this action would update the geographic coordinates of the airport to match the FAA's current aeronautical database.

DATES: Comments must be received on or before June 12, 2017.

ADDRESSES: Send comments on this proposal to the U.S. Department of Transportation, Docket Operations, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590; telephone: 1–800–647–5527, or (202) 366–9826. You must identify FAA Docket No. FAA–2017–0258; Airspace Docket No. 16–AWP–15, at the beginning of your comments. You may also submit comments through the Internet at *http://www.regulations.gov.*

FAA Order 7400.11A, Airspace Designations and Reporting Points, and subsequent amendments can be viewed online at *http://www.faa.gov/air_traffic/publications/.* For further information, you can contact the Airspace Policy Group, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone: 202–267–8783. The Order is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of FAA Order 7400.11A at NARA, call 202–741–6030, or go to *http://www.archives.gov/federal_register/code_of_federal-regulations/ibr_locations.html.* FAA Order 7400.11, Airspace Designations and Reporting Points, is published yearly and effective on September 15.

FOR FURTHER INFORMATION CONTACT: Tom Clark, Federal Aviation Administration, Operations Support Group, Western Service Center, 1601 Lind Avenue SW., Renton, WA 98057; telephone (425) 203–4511.

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

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 would amend Class E airspace extending upward from 700 feet above the surface at Colorado City Municipal Airport, Colorado City, AZ.

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Persons wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2017–0258/Airspace Docket No. 16–AWP–15''. The postcard will be date/time stamped and returned to the commenter.

All communications received before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of the comments received. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of NPRMs

An electronic copy of this document may be downloaded through the Internet at *http://www.regulations.gov.* Recently published rulemaking documents can also be accessed through the FAA's Web page at *http://www.faa.gov/air_traffic/publications/airspace_amendments/.*

You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office (see the **ADDRESSES** section for the address and phone number) between 9:00 a.m. and 5:00 p.m., Monday through Friday, except federal holidays. An informal docket may also be examined during normal business hours at the Northwest Mountain Regional Office of the Federal Aviation Administration, Air Traffic Organization, Western Service Center, Operations Support Group, 1601 Lind Avenue SW., Renton, WA 98057.

Availability and Summary of Documents Proposed for Incorporation by Reference

This document proposes to amend FAA Order 7400.11A, Airspace Designations and Reporting Points, dated August 3, 2016, and effective September 15, 2016. FAA Order 7400.11A is publicly available as listed in the **ADDRESSES** section of this document. FAA Order 7400.11A lists Class A, B, C, D, and E airspace areas, air traffic service routes, and reporting points.

The Proposal

The FAA is proposing an amendment to Title 14 Code of Federal Regulations (14 CFR) Part 71 by modifying Class E airspace extending upward from 700

feet above the surface at Colorado City Municipal Airport, Colorado City, AZ. The airspace would be modified from the 6.5-mile radius of the airport to 7.8 miles west and 2 miles east of the 163° (from 173°) bearing from the airport to 16 miles (from 12 miles) south of the airport to contain the NDB–A procedure turn, and a segment would be added from the 6.5-mile radius of the airport extending to 15.1 miles southeast of the airport to support a new RNAV GPS RWY 29 instrument approach procedure for IFR operations at the airport.

The Class E airspace area extending upward from 1,200 feet would be removed as there is sufficient 1,200 foot airspace provided by St. George Class E airspace extending from 700 feet above the surface and Grand Canyon Class E en route airspace. Also, this action would update the geographic coordinates of the airport to lat. 36°57′36″ N., long. 113°00′50″ W. (from lat. 36°57′08″ N., long. 113°00′59″ W.), to match the FAA's current aeronautical database.

Class E airspace designations are published in paragraph 6005 of FAA Order 7400.11A, dated August 3, 2016, and effective September 15, 2016, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document will be published subsequently in the Order.

Regulatory Notices and Analyses

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, would not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Environmental Review

This proposal will be subject to an environmental analysis in accordance with FAA Order 1050.1F, ''Environmental Impacts: Policies and Procedures'' prior to any FAA final regulatory action.

List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend 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 14 CFR part 71 continues to read as follows:

Authority: 49 U.S.C. 106(f), 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 FAA Order 7400.11A, Airspace Designations and Reporting Points, dated August 3, 2016, and effective September 15, 2016, is amended as follows:

Paragraph 6005 Class E Airspace Areas Extending Upward From 700 Feet or More Above the Surface of the Earth.

* * * * *

AWP AZ E5 Colorado City, AZ [Modified]

Colorado City Municipal Airport, AZ
(Lat. 36°57′36″ N., long. 113°00′50″ W.)

That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the Colorado City Municipal Airport, and within 7.8 miles west and 4.2 miles east of a 163° bearing extending from the airport to 16 miles south of the airport, and within 2 miles each side of a 123° bearing from the airport extending to 15.1 miles southeast of the airport.

Issued in Seattle, Washington, on April 19, 2017.

Sam S.L. Shrimpton,

Acting Group Manager, Operations Support Group, Western Service Center.

[FR Doc. 2017–08448 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–13–P

RAILROAD RETIREMENT BOARD

20 CFR Part 200

RIN 3220–AB67

General Administration: Designation of Central and Field Organization; Internal Organization

AGENCY: Railroad Retirement Board.

ACTION: Proposed rule.

SUMMARY: The Railroad Retirement Board (Board) proposes to amend its regulations to update the members of the Executive Committee, update the responsibilities of the Executive Committee members, and update office titles.

DATES: Submit comments on or before June 26, 2017.

ADDRESSES: Address any comments concerning this proposed rule to Secretary to the Board, Railroad Retirement Board, 844 N. Rush Street, Chicago, Illinois 60611–2092.

FOR FURTHER INFORMATION CONTACT: Kelli D. Johnson, Assistant General Counsel, (312) 751–4937, TTD (312) 751–4701.

SUPPLEMENTARY INFORMATION: The Railroad Retirement Board (Board) proposes to amend its regulations in regard to the Board's policy on internal organization. The regulations to be amended are all contained in § 200.1(b). In § 200.1(b)(1) of the Board's regulations, the Board proposes to remove the language that states ''the General Counsel also serves as the Senior Executive Officer,'' and increase the number of members of the Executive Committee from six to seven members by adding as a member, the Director of Field Service. A description of the Director of Field Service's responsibilities will be added to § 200.1(b)(2). Finally, under § 200.1(b)(3), the office name of the Washington/Legislative Office will be changed to the Office of Legislative Affairs. Section 200.1(b)(3) of the proposed regulation will also remove the Office of Planning, and rename the Bureau of Quality Assurance to the Program Evaluation and Management Services (PEMS).

The Board, with the concurrence of the Office of Management and Budget, has determined that this is not a significant regulatory action under Executive Order 12866, as amended. Therefore, no regulatory impact analysis is required. There are no changes to the information collections associated with § 200.1(b).

List of Subjects in 20 CFR Part 200

Railroad employees, Railroad retirement, General administration.

For the reasons set out in the preamble, the Railroad Retirement Board proposes to amend title 20, chapter II, subchapter A, part 200 of the Code of Federal Regulations as follows:

PART 200—GENERAL ADMINISTRATION

■ 1. The authority citation for part 200 continues to read as follows:

Authority: 45 U.S.C. 231f(b)(5) and 45 U.S.C. 362; § 200.4 also issued under 5 U.S.C.

552; § 200.5 also issued under 5 U.S.C. 552a; § 200.6 also issued under 5 U.S.C. 552b; and § 200.7 also issued under 31 U.S.C. 3717.

■ 2. Section 200.1 is amended by revising paragraph (b) to read as follows:

§ 200.1 Designation of central and field organization.

* * * * *

(b) Internal organization. (1) Reporting directly to the Board Members is the seven member Executive Committee. The Executive Committee is comprised of the General Counsel, the Director of Administration, the Director of Programs, the Chief Financial Officer, the Chief Information Officer, and the Director of Field Service. The Chief Actuary is a non-voting member. The Board members will designate a member of the Executive Committee as Senior Executive Officer.

(2) The Executive Committee is responsible for the day to day operations of the agency. The Senior Executive Officer is responsible for the direction and oversight of the Executive Committee. The General Counsel is responsible for advising the Board Members on major issues, interpreting the Acts and regulations administered by the Board, drafting and analyzing legislation, representing the Board in litigation and administrative forums and planning, directing, and coordinating the work of the Office of General Counsel, the Office of Secretary to the Board, the Bureau of Hearings and Appeals, and the Office of Legislative Affairs through their respective directors. The Director of Programs is responsible for managing, coordinating, and controlling the program operations of the agency which carry out provisions of the Railroad Retirement and Railroad Unemployment Insurance Acts. The Director of Administration is responsible for managing, coordinating and controlling certain administrative operations of the Board including the Division of Acquisition Management, the Bureau of Human Resources, the Office of Public Affairs, and the Division of Real Property Management. The Chief Financial Officer is responsible for the financial management of the agency, and the Chief Information Officer is responsible for coordinating the agency's information resources management program. The Chief Actuary is responsible for the actuarial program of the Board, and for maintaining statistical and financial information. The Director of Field Services is responsible for the oversight of the agency's nationwide field offices.

(3) The Office of Equal Employment Opportunity is responsible for equal employment opportunity and affirmative employment programs.

* * * * *

By Authority of the Board.

Martha P. Rico,

Secretary to the Board.

[FR Doc. 2017–07893 Filed 4–26–17; 8:45 am]

BILLING CODE P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2017–0197]

RIN 1625–AA00

Safety Zone; South Branch of the Chicago River and Chicago Sanitary and Ship Canal, Chicago, IL, Tough Cup

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to establish a temporary safety zone on the South Branch of the Chicago River and the Chicago Sanitary and Ship Canal, Chicago, IL. This action is necessary to protect spectators, participants, and vessels from the hazards associated with the Tough Cup, a crew regatta event. This proposed rulemaking would prohibit persons and vessels from being in the safety zone unless authorized by the Captain of the Port Lake Michigan.

DATES: Comments and related material must be received by the Coast Guard on or before May 30, 2017.

ADDRESSES: You may submit comments identified by docket number USCG–2017–0197 using the Federal eRulemaking Portal at *http://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this proposed rulemaking, call or email LT Lindsay Cook, Marine Safety Unit Chicago, U.S. Coast Guard; telephone (630) 986–2155, email *Lindsay.N.Cook@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
Pub. L. Public Law
§ Section
U.S.C. United States Code

II. Background, Purpose, and Legal Basis

On November 16, 2016, the Coast Guard received an Application for Marine Event for the Tough Cup event to be held on the South Branch of the Chicago River and the Chicago Sanitary and Ship Canal between the South Pulaski Road Bridge and the South Halsted Street Bridge. This event involves high performance rowing shells and sculls that range in size from 27 feet to 65 feet in length and oars out to 25 feet in width to race on a course along the South Branch of the Chicago River and the Chicago Sanitary and Ship Canal. The Captain of the Port Lake Michigan has determined that the potential hazards associated with this event would be a safety concern for participants as well as recreational and commercial traffic in or around the course where the event will take place.

This purpose of the rulemaking is to ensure the safety of vessels, persons and the navigable waters immediately before, during, and immediately after the scheduled event. The specific hazards include collisions among event participants, recreational traffic, and commercial traffic that may cause injury or marine casualties. The legal basis for this proposed rule is the Coast Guard's authority to establish safety zones: 33 U.S.C. 1231; 33 CFR 1.05–1, 160.5; Department of Homeland Security Delegation No. 0170.1.

III. Discussion of Proposed Rule

The Captain of the Port Lake Michigan proposes to establish a safety zone on all waters of the South Branch of the Chicago River and the Chicago Sanitary and Ship Canal between the South Pulaski Road Bridge and the South Halsted Street Bridge. This safety zone will be enforced from 7:00 a.m. to 2:00 p.m. on September 30, 2017. The safety zone enforcement times are intended to ensure the safety of persons and vessels immediately before, during and immediately after the event.

The Captain of the Port Lake Michigan has determined that the safety zone in this proposed rule is necessary to ensure the safety of vessels and people during this event. The safety zone in this proposed rule will be enforced for seven hours on September 30, 2017.

The Captain of the Port Lake Michigan will notify the public that the zone in this proposal will be enforced by all appropriate means to the affected segments of the public, including publication in the **Federal Register**, as practicable, in accordance with 33 CFR

165.7(a). Such means of notification will include, but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners.

All persons and vessels must comply with the instructions of the Coast Guard Captain of the Port Lake Michigan or his or her designated representative. Entry into, transiting, or anchoring within the safety zone is prohibited unless authorized by the Captain of the Port or his or her designated representative. The Captain of the Port or his or her designated representative may be contacted via VHF Channel 16.

IV. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on a number of the statutes and Executive Orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 (''Regulatory Planning and Review'') and 13563 (''Improving Regulation and Regulatory Review'') direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. Executive Order 13771 (''Reducing Regulation and Controlling Regulatory Costs''), directs agencies to reduce regulation and control regulatory costs and provides that ''for every one new regulation issued, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process.''

The Office of Management and Budget (OMB) has not designated this rule a significant regulatory action under section 3(f) of Executive Order 12866. Accordingly, the Office of Management and Budget (OMB) has not reviewed it. As this rule is not a significant regulatory action, this rule is exempt from the requirements of Executive Order 13771. See OMB's Memorandum titled ''Interim Guidance Implementing Section 2 of the Executive Order of January 30, 2017 titled 'Reducing Regulation and Controlling Regulatory Costs' '' (February 2, 2017). A regulatory analysis (RA) follows.

We conclude that this proposed rule is not a significant regulatory action because we anticipate that it will have minimal impact on the economy, will not interfere with other agencies, will not adversely alter the budget of any grant or loan recipients, and will not raise any novel legal or policy issues. The safety zone created by this rule will be relatively small and enforced for a short duration on the one day this rule will be in effect to ensure safety of spectators and participants at this scheduled event. Moreover, the Coast Guard would issue a Broadcast Notice to Mariners via VHF–FM marine channel 16 about the safety zone, and the rule would allow vessels to seek permission to enter the zone.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section IV.A above this proposed rule would not have a significant economic impact on any vessel owner or operator.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES**) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this proposed rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. The Coast Guard will not retaliate against small entities that question or complain about this proposed rule or any policy or action of the Coast Guard.

C. Collection of Information

This proposed rule would not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this proposed rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this proposed rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it would not have a substantial direct effect on one or more 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. If you believe this proposed rule has implications for federalism or Indian tribes, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section above.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this proposed rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.lD, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule

involves amendments to navigation regulations and establishment of a safety zone. Normally such actions are categorically excluded from further review under section 2.B.2, and figure 2–1, paragraph 34(g) of the Instruction. A preliminary Record of Environmental Consideration (REC) supporting this determination is available in the docket where indicated under the **ADDRESSES** section of this preamble. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking, and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

We encourage you to submit comments through the Federal eRulemaking Portal at *http://www.regulations.gov.* If your material cannot be submitted using *http://www.regulations.gov,* contact the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

We accept anonymous comments. All comments received will be posted without change to *http://www.regulations.gov* and will include any personal information you have provided. For more about privacy and the docket, you may review a Privacy Act notice regarding the Federal Docket Management System in the March 24, 2005, issue of the **Federal Register** (70 FR 15086).

Documents mentioned in this NPRM as being available in the docket, and all public comments, will be in our online docket at *http://www.regulations.gov* and can be viewed by following that Web site's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted or a final rule is published.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and record keeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1231; 50 U.S.C. 191; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add § 165.T09–0197 to read as follows:

§ 165. T09–0197 Safety Zone; South Branch of the Chicago River and the Chicago Sanitary and Ship Canal, Chicago, IL, Tough Cup.

(a) *Location.* All waters of the South Branch of the Chicago River and the Chicago Sanitary and Ship Canal between the South Pulaski Road Bridge and the South Halsted Street Bridge are designated as a safety zone.

(b) *Effective and Enforcement Period.* This rule will be effective from 7:00 a.m. to 2:00 p.m. on September 30, 2017 and will be enforced from 7:00 a.m. to 2:00 p.m. on September 30, 2017.

(c) *Regulations.* (1) In accordance with the general regulations in § 165.23 of this part, entry into, transiting, or anchoring within this safety zone is prohibited unless authorized by the Captain of the Port Lake Michigan or a designated on-scene representative.

(2) This safety zone is closed to all vessel traffic, except as may be permitted by the Captain of the Port Lake Michigan or a designated on-scene representative.

(3) The ''on-scene representative'' of the Captain of the Port Lake Michigan is any Coast Guard commissioned, warrant or petty officer who has been designated by the Captain of the Port Lake Michigan to act on his or her behalf.

(4) Vessel operators desiring to enter or operate within the safety zone shall contact the Captain of the Port Lake Michigan or an on-scene representative to obtain permission to do so. The Captain of the Port Lake Michigan or an on-scene representative may be contacted via VHF Channel 16. Vessel operators given permission to enter or operate in the safety zone must comply with all directions given to them by the Captain of the Port Lake Michigan, or an on-scene representative.

Dated: April 20, 2017.

A.B. Cocanour,

Captain, U.S. Coast Guard, Captain of the Port Lake Michigan.

[FR Doc. 2017–08482 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2017–0092; FRL–9961–98–Region 9]

Approval and Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze State and Federal Implementation Plans

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve a source-specific revision to the Arizona state implementation plan (SIP) that provides an alternative to Best Available Retrofit Technology (BART) for the Coronado Generating Station (''Coronado''), owned and operated by the Salt River Project Agricultural Improvement and Power District. The EPA proposes to find that the BART alternative for Coronado would provide greater reasonable progress toward natural visibility conditions than BART, in accordance with the requirements of the Clean Air Act and the EPA's Regional Haze Rule. In conjunction with this proposed approval, we propose to withdraw those portions of the federal implementation plan (FIP) that address BART for Coronado. We also propose to codify the removal of those portions of the Arizona SIP that have either been superseded by previously approved revisions to the Arizona SIP or would be superseded by final approval of the SIP revision for Coronado.

DATES: Written comments must be submitted on or before June 12, 2017. Requests for public hearing must be received on or before May 12, 2017.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–0092 at *http://www.regulations.gov,* or via email to Krishna Viswanathan at *viswanathan.krishna@epa.gov.* For comments submitted at *Regulations.gov*, follow the online instructions for submitting comments. Once submitted, comments cannot be removed or edited from *Regulations.gov*. For either manner

of submission, the EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Krishna Viswanathan, EPA, Region IX, Air Division, Air Planning Office, (520) 999–7880 or *viswanathan.krishna@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us,'' and ''our'' refer to the EPA.

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II. Background
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I. General Information

A. Definitions

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- The initials *AAC* mean or refer to the Arizona Administrative Code.
- The initials *ADEQ* mean or refer to the Arizona Department of Environmental Quality.
- The words *Arizona* and *State* mean the State of Arizona.
- The word *Coronado* refers to the Coronado Generating Station.
- The initials *BART* mean or refer to Best Available Retrofit Technology.
- The initials *BOD* mean or refer to boiler operating day.
- The term *Class I area* refers to a mandatory Class I Federal area.[1]
- The initials *CAA* mean or refer to the Clean Air Act.
- The initials *CBI* mean or refer to Confidential Business Information.
- The words *EPA, we, us,* or *our* mean or refer to the United States Environmental Protection Agency.
- The initials *FIP* mean or refer to federal implementation plan.
- The initials *LNB* mean or refer to low-NO_X burners.
- The initials *MACT* mean or refer to Maximum Available Control Technology.
- The initials *lb/MMBtu* mean or refer to pounds per million British thermal units.
- The initials *NAAQS* mean or refer to National Ambient Air Quality Standards.
- The initials *NSPS* mean or refer to Standards of Performance for New Stationary Sources.
- The initials NO_X mean or refer to nitrogen oxides.
- The initials *OFA* mean or refer to over fire air.
- The initials *PM* mean or refer to particulate patter, which is inclusive of PM_{10} (particulate matter less than or equal to 10 micrometers) and $PM_{2.5}$ (particulate matter less than or equal to 2.5 micrometers).
- The initials *SCR* mean or refer to selective catalytic reduction.
- The initials *SIP* mean or refer to state implementation plan.
- The initials SO_2 mean or refer to sulfur dioxide.
- The initials *SRP* mean or refer to the Salt River Project Agricultural Improvement and Power District.

B. Docket

The proposed action relies on documents, information, and data that are listed in the index on *http://www.regulations.gov* under docket number EPA–R09–OAR–2017–0092. Although listed in the index, some information is not publicly available (*e.g.,* CBI). Certain other material, such as copyrighted material, is publicly available only in hard copy form. Publicly available docket materials are available either electronically at *http://www.regulations.gov* or in hard copy at the Air Planning Office of the Air Division, AIR–2, EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105. The EPA requests that you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 9–5:00 PDT, excluding federal holidays.

C. Public Hearings

If anyone contacts the EPA by May 12, 2017 requesting to speak at a public hearing, the EPA will schedule a public hearing and announce the hearing in the **Federal Register**. Contact Krishna Viswanathan at (520) 999–7880 or *Viswanathan.krishna@epa.gov* to request a hearing or to find out if a hearing will be held.

II. Background

A. Summary of Statutory and Regulatory Requirements

Congress created a program for protecting visibility in the nation's national parks and wilderness areas in 1977 by adding section 169A to the CAA. This section of the CAA establishes as a national goal the ''prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from man-made air pollution.'' [2] It also directs states to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states to revise their SIPs to contain such measures as may be necessary to make reasonable progress towards the national visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate BART controls. These sources are referred to as ''BART-eligible'' sources.[3] In the 1990 CAA Amendments, Congress amended the visibility provisions in the CAA to focus attention on the problem of regional haze, which is visibility impairment produced by a multitude of sources and activities located across a broad geographic area.[4] We promulgated the initial Regional Haze Rule in 1999 [5] and updated it in 2017.[6] The CAA and the Regional Haze Rule require states to develop and implement SIPs to ensure reasonable progress toward improving visibility in mandatory class I Federal areas [7] by reducing emissions that cause

[1] Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to mandatory Class I Federal areas. When we use the term ''Class I area'' in this action, we mean a ''mandatory Class I Federal area.''

[2] *See* CAA section 169B, 42 U.S.C. 7492.

[3] 40 CFR 51.301.

[4] *See* CAA section 169B, 42 U.S.C. 7492.

[5] 64 FR 35714 (July 1, 1999).

[6] 82 FR 3078 (January 10, 2017).

[7] Areas designated as mandatory Class I federal areas consist of national parks exceeding 6000 acres, wilderness areas, and national memorial parks exceeding 5000 acres, and all international

or contribute to regional haze.[8] Under the Regional Haze Rule, states are directed to conduct BART determinations and establish emissions limitations for BART-eligible sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area.[9] In lieu of requiring source-specific BART controls, states also have the flexibility to adopt alternative measures, as long as the alternative provides greater reasonable progress towards natural visibility conditions than BART (*i.e.,* the alternative must be ''better than BART'').[10]

In addition to the visibility protection requirements of the CAA and the Regional Haze Rule, SIP revisions concerning regional haze are also subject to the general requirements of CAA section 110. In particular, they are subject to the requirement in CAA section 110(1) that SIP revisions must not ''interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in [CAA § 171]), or any other applicable requirement of [the CAA],'' as well as the requirement in CAA section 110(a)(2)(A) that SIPs must include enforceable emission limits.

B. History of FIP BART Determination

1. 2011 Arizona Regional Haze SIP and 2012 Arizona Regional Haze FIP

The Arizona Department of Environmental Quality (ADEQ) submitted a Regional Haze SIP (''Arizona Regional Haze SIP'') to the EPA on February 28, 2011. The Arizona Regional Haze SIP included BART determinations for nitrogen oxides (NO_X), particulate matter less than or equal to 10 micrometers (PM_{10}), and sulfur dioxide (SO_2) for Units 1 and 2 at Coronado. In a final rule published on December 5, 2012, the EPA approved ADEQ's BART determinations for PM_{10} and SO_2, but disapproved ADEQ's determination for NO_X at Coronado.[11] We also found that the SIP lacked the requisite compliance schedules and requirements for equipment maintenance and operation, including monitoring, recordkeeping, and reporting requirements for BART for all pollutants. At the same time, we promulgated a FIP that included a plant-wide NO_X BART emission limit for Coronado of 0.065 pounds per million British thermal units (lb/MMBtu) based on a 30-boiler-operating-day (BOD) rolling average, which Salt River Project Agricultural Improvement and Power District (SRP) could meet by adding a low-load temperature control to its existing selective catalytic reduction (SCR) system on Unit 2 and installing an SCR system including a low-load temperature control system on Unit 1. The FIP also included compliance deadlines and requirements for equipment maintenance and operation, including monitoring, recordkeeping, and reporting, to ensure the enforceability of the BART limits for SO_2, PM_{10}, and NO_X.

In addition, the FIP included two requirements that applied to all affected sources, including Coronado. First, we promulgated a work practice standard that requires that pollution control equipment be designed and capable of operating properly to minimize emissions during all expected operating conditions. Second, we incorporated by reference into the FIP certain provisions of the Arizona Adminsitrative Code (AAC) that establish an affirmative defense for excess emissions due to malfunctions. Please refer to the final rule published on December 5, 2012, for further information on the BART determinations and related FIP requirements.[12]

2. Petition for Reconsideration and Stay of Regional Haze FIP

The EPA received a petition from SRP on February 4, 2013, requesting partial reconsideration and an administrative stay of the final rule under section 307(d)(7)(B) of the CAA and section 705 of the Administrative Procedure Act.[13] EPA Region 9 sent a letter on April 9, 2013, to representatives of SRP granting partial reconsideration of the final rule for the Arizona Regional Haze FIP.[14] In particular, the EPA stated that we were granting reconsideration of the compliance methodology for NO_X emissions from Units 1 and 2 at Coronado and that we would issue a notice of proposed rulemaking seeking comment on an alternative compliance methodology. We also noted that, because we initially proposed different NO_X emission limits for the two units, we would seek comment on the appropriate emission limit for each of the units.

3. FIP Revision for Coronado

In response to the petition from SRP, we issued a final FIP revision on April 13, 2016, replacing the plant-wide compliance method with a unit-specific compliance method for determining compliance with the BART emission limits for NO_X from Units 1 and 2 at Coronado (''2016 BART Reconsideration'').[15] While the plant-wide limit for NO_X emissions from Units 1 and 2 was previously established as 0.065 lb/MMBtu, through this FIP revision we set a unit-specific limit of 0.065 lb/MMBtu for Unit 1 and 0.080 lb/MMBtu for Unit 2, to be met by December 5, 2017. We also revised the work practice standard that applied to Coronado and removed the affirmative defense for malfunctions that was included in the FIP for Coronado.

4. Arizona Regional Haze SIP Revision for Coronado Generating Station

On December 15, 2016, ADEQ submitted a revision to the Arizona Regional Haze SIP (''Coronado SIP Revision'') that provides an alternative to BART for Coronado (''Coronado BART Alternative'').[16] The Coronado SIP Revision is the subject of this proposal.

III. The Coronado SIP Revision

A. Summary of the Coronado SIP Revision

The Coronado SIP Revision and BART Alternative consists of an interim operating strategy (''Interim Strategy''), which would be in effect from December 5, 2017 to December 31, 2025, and a final operating strategy (''Final Strategy''), which would take effect on January 1, 2026. The requirements associated with the Interim and Final Strategies are shown in Table 1 and summarized briefly below.

1. Final Strategy

The Final Strategy in the Coronado SIP Revision requires installation of SCR on Unit 1 (''SCR Option'') or the

parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a).

[8] *See generally* 40 CFR 51.308.

[9] 40 CFR 51.308(e).

[10] 40 CFR 51.308(e)(2) and (3).

[11] 77 FR 72512 (December 5, 2012).

[12] *Id.*

[13] Petition of Salt River Project Agricultural Improvement and Power District for Partial Reconsideration and Stay of EPA's Final Rule: ''Approval, Disapproval and Promulgation of Air Quality Implementation Plans; Arizona; Regional Haze State and Federal Implementation Plans'' (February 4, 2013).

[14] Letters from Jared Blumenfeld, EPA, to Norman W. Fichthorn and Aaron Flynn, Hunton and Williams (April 9, 2013).

[15] 81 FR 21735 (April 13, 2016).

[16] Letter from Timothy S. Franquist, Director Air Quality Division, ADEQ, to Alexis Strauss, Action Regional Administrator, EPA Region 9 (December 15, 2016). The Coronado SIP Revision includes both the original version of the revision (dated July 19, 2016) that was proposed by ADEQ for public comment, and an addendum (''Addendum'' dated November 10, 2016), in addition to various supporting materials. The Addendum documents changes to the Coronado BART Alternative since ADEQ's July 19, 2016 proposal. Unless otherwise specified, references in this document to the Coronado SIP Revision include both of these documents, as well as the other materials included in ADEQ's submittal.

permanent cessation of operation of Unit 1 (''Shutdown Option'') no later than December 31, 2025. SRP is required to notify ADEQ and the EPA of its selection by December 31, 2022. The Final Strategy includes two additional features: A SO_2 emission limit of 0.060 lb/MMBtu, calculated on a 30–BOD rolling average, which applies to Unit 2 (as well as Unit 1 if it continues operating), and an annual plant-wide SO_2 emissions cap of either 1,970 tons per year (tpy) if both units continue operating or 1,080 tpy if Unit 1 shuts down.

2. Interim Strategy

The Interim Strategy includes three different operating options (designated IS2, IS3, and IS4), each of which requires a period of seasonal curtailment (*i.e.,* temporary closure) for Unit 1. Each year, SRP must select and implement one of the three options, based on the NO_X emissions performance of Unit 1 and the SO_2 emissions performance of Units 1 and 2 in that year. In particular, by October 21 of each year, SRP must notify ADEQ and the EPA of its chosen option for that calendar year (and for January of the following year) and demonstrate that its NO_X and SO_2 emissions for that year (up to the date of the notification) have not already exceeded the limits associated with that option.[17] SRP then must comply with those limits for the remainder of the year (and for January of the following year) and curtail operation of Unit 1 for the time period required under that option.[18] In addition, under each option, the facility must comply with an annual plant-wide SO_2 emissions cap of 1,970 tpy effective in each year beginning in 2018.

TABLE 1—SUMMARY OF CORONADO BART ALTERNATIVE COMPARED WITH 2014 BASELINE AND BART CONTROL STRATEGY

Control strategy	Unit 1 (lb/MMBtu) (30–BOD average)		Unit 2 (lb/MMBtu) (30–BOD average)		Annual plant-wide SO_2 cap (tpy)	Unit 1 curtailment period
	NO_X	SO_2	NO_X	SO_2		
2014 Baseline [a]	0.320	0.080	0.080	0.080	N/A	N/A
BART Control Strategy [b]	0.065	0.080	0.080	0.080	N/A	N/A
Interim Strategy: [c]						
IS2	0.320	0.060	0.080	0.060	1,970	October 21–January 31
IS3	0.320	0.050	0.080	0.050	1,970	November 21–January 20
IS4	0.310	0.060	0.080	0.060	1,970	November 21–January 20
Interim Strategy Timeline	Notification date: October 21 of each year Operates December 5, 2017 to December 31, 2025					
Final Strategy:						
SCR Installation	0.065	0.060	0.080	0.060	1,970	N/A
Shutdown	N/A	N/A	0.080	0.060	1,080	N/A
Final Strategy Timeline	Notification date: December 31, 2022 Shutdown or install & operate SCR: December 31, 2025					

[a] This scenario reflects the requirements of a 2008 consent decree (CD) between the United States and SRP, which include new wet flue gas desulfurization (FGD) and Low NO_X burners (LNB) with over fire air (OFA) on both units, and SCR on Unit 2. *See* United States v. Salt River Project Agricultural Improvement and Power District, Civil Action No. 2:08–cv–1479–JAT (D. Ariz.) (August 12, 2008).
[b] 2016 EPA BART Reconsideration for NO_X and 2010 ADEQ BART for SO_2.
[c] *See* Addendum, Page 3, Table 1.

ADEQ incorporated the revised emission limits, as well as associated compliance deadlines and monitoring, recordkeeping, and reporting requirements, as a permit revision to Coronado's existing Operating Permit, which was submitted as part of the Coronado SIP Revision (''Coronado Permit Revision'').[19]

The Coronado SIP Revision also includes ADEQ's determination that the Coronado BART Alternative is ''better than BART,'' based on a demonstration that it fulfills the requirements of 40 CFR 51.308(e)(2) for a BART alternative. More information regarding ADEQ's analysis is set forth below, along with the EPA's evaluation of the analysis.

B. The EPA's Evaluation of the Coronado BART Alternative.

The Regional Haze Rule requires that a SIP revision establishing a BART alternative include three elements, which are listed below. We have evaluated the Coronado BART Alternative with respect to each of the following elements:

- A demonstration that the emissions trading program or other alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State and covered by the alternative program.[20]
- A requirement that all necessary emissions reductions take place during the period of the first long-term strategy for regional haze.[21]
- A demonstration that the emissions reductions resulting from the alternative measure will be surplus to those reductions resulting from measures

[17] *See* Coronado SIP Revision, Appendix B, Permit No. 64169 as amended by Significant Revision to operating permit No. 63088 (December 14, 2016), Attachment E, condition D.1.

[18] As indicated in Table 1, the first curtailment and last curtailment periods would be shorter than the periods in between. Under all three interim strategies, the first curtailment period would begin December 5, 2017. Under all three interim strategies, the last curtailment period would end December 31, 2025.

[19] Coronado SIP Revision, Appendix B, Permit No. 64169 as amended by Significant Revision to operating permit No. 63088 (December 14, 2016). The provisions implementing the BART Alternative are incorporated in Attachment E to the permit. Attachment E will become effective under State law on the date of the EPA's final action to approve Attachment E into the Arizona SIP and rescind the provisions of the Arizona Regional Haze FIP that apply to Coronado. *Id.* Attachment E, section I.A.

[20] 40 CFR 51.308(e)(2)(i).

[21] 40 CFR 51.308(e)(2)(iii).

adopted to meet requirements of the CAA as of the baseline date of the SIP.[22]

1. Demonstration that the alternative measure will achieve greater reasonable progress.

Pursuant to 40 CFR 51.308(e)(2)(i), ADEQ must demonstrate that the alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State and covered by the alternative program. For a source-specific BART alternative, the critical elements of this demonstration are:

- An analysis of BART and associated emission reductions [23]
- an analysis of projected emissions reductions achievable through the BART alternative [24]
- a determination that the alternative achieves greater reasonable progress than would be achieved through the installation and operation of BART [25]

We summarize ADEQ's submittal with respect to each of these elements and provide our evaluation of the submittal below.

a. Analysis of BART and Associated Emission Reductions

Pursuant to 40 CFR 51.308(e)(2)(i)(C), the SIP must include an analysis of BART and associated emission reductions at Units 1 and 2. As noted above, ADEQ's BART analyses and determinations for Units 1 and 2 were included in the Arizona Regional Haze SIP. We approved ADEQ's BART determinations for PM_{10} and SO_2, but disapproved ADEQ's BART determination for NO_X and conducted our own BART analysis and determination for NO_X BART in the Arizona Regional Haze FIP. We later revised the NO_X emission limits for Units 1 and 2 in the 2016 BART Reconsideration.[26]

In the Coronado SIP Revision, ADEQ compared the BART Alternative both to ADEQ's original BART determinations and to the EPA's BART determinations in the 2016 BART Reconsideration. For purposes of our evaluation, we consider BART for Coronado to consist of a combination of (1) ADEQ's BART determinations for PM_{10} and SO_2, which were approved into the applicable SIP, and (2) the EPA's BART determination for NO_X in the 2016 BART Reconsideration (collectively the ''Coronado BART Control Strategy''). The emission limits comprising the Coronado BART Control Strategy are summarized in Table 2.

TABLE 2—CORONADO BART CONTROL STRATEGY EMISSION LIMITS

Unit	Emission limits (lb/MMBtu, averaged over a 30 boiler-operating-days)		
	NO_X	PM_{10}	SO_2
Unit 1	0.065	0.030	0.080
Unit 2	0.080	0.030	0.080

In the Technical Support Document (TSD) included with the Coronado SIP Revision,[27] ADEQ calculated estimated annual emission reductions achievable with BART by comparing expected annual emissions under the Coronado BART Control Strategy with 2014 emissions (''2014 Baseline'').[28] The results of these calculations are summarized in Table 3. As BART for PM_{10} and SO_2 reflected existing controls, no emissions reductions of PM_{10} and SO_2 are expected to result from BART, but significant reductions of NO_X are expected to result from implementation of BART.

TABLE 3—SUMMARY OF EMISSION REDUCTIONS ACHIEVABLE WITH CORONADO BART CONTROL STRATEGY

[tpy]

Operating strategies	NO_X	SO_2	PM_{10}	Total
2014 Baseline Emissions	6,506	2,651	994	10,151
Coronado BART Control Strategy Emissions	2,410	2,651	994	6,055
Emission Reductions	4,096	0	0	4,096

We propose to find that ADEQ has met the requirement for an analysis of BART and associated emission reductions achievable at Coronado under 40 CFR 51.308(e)(2)(i)(C). We note that the Regional Haze Rule does not specify what baseline year should be used for calculating emission reductions under 40 CFR 51.308(e)(2)(i)(C).[29] However, because the purpose of calculating emission reductions achievable with BART is to compare these reductions to those achievable through the BART alternative,[30] it is important that a consistent baseline be used for both sets of calculations. In this instance, Arizona used the 2014 Baseline for both purposes, so we find that its approach was reasonable.

[22] 40 CFR 51.308(e)(2)(iv).

[23] 40 CFR 51.308(e)(2)(i)(C).

[24] 40 CFR 51.308(e)(2)(i)(D).

[25] 40 CFR 51.308(e)(2)(i)(E).

[26] 81 FR 21735 (April 13, 2016).

[27] Coronado SIP Revision (July 19, 2016), Appendix A, ''Technical Support Document for Regional Haze State Implementation Plan Revision for the Salt River Project Coronado Generating Station.''

[28] *Id.* section 4. As noted above, the 2014 Baseline emissions reflects the requirements of the 2008 CD between the United States and SRP, including new FGD and LNB with OFA on both units, and SCR on Unit 2.

[29] As explained below, the baseline date for regional haze SIPs is 2002 and, pursuant to 40 CFR 51.308(e)(2)(iv), the emissions reductions resulting from the alternative measure must be surplus to those reductions required as of 2002. However, this provision does not determine what baseline should be used for purposes of calculating emission reductions achievable under 40 CFR 51.308(e)(2)(i)(C).

[30] *See, e.g.,* 71 FR 60612, 60615 (October 13, 2006)(''Today's final rule revises section 51.308(e)(2) to make clear that the emissions reductions that could be achieved through implementation of the BART provisions at section 51.308(e)(1) serve as the benchmark against which States can compare an alternative program.'')

b. Analysis of Projected Emissions Reductions Achievable Through the BART Alternative

In the Coronado SIP Revision TSD, ADEQ calculated emissions reductions achievable under the Interim Strategy by comparing estimated annual emissions under the Interim Strategy with 2014 Baseline emissions. In the Addendum to the Coronado SIP Revision, ADEQ also provided a summary of estimated annual emissions under the Final Strategy compared to 2014 Baseline emissions. The resulting emission reductions are shown in Table 4.

TABLE 4—SUMMARY OF EMISSION REDUCTIONS ACHIEVABLE WITH CORONADO BART ALTERNATIVE [a]

Operating strategies	NO_X	SO_2	PM	Total
Interim Strategy 2 (IS2) [b]				
2014 Baseline Emissions	6,506	2,651	994	10,151
Interim Strategy IS2 Emissions	5,053	2002	858	7913
Emission Reductions	1,453	649	136	2,238
Interim Strategy 3 (IS3)				
2014 Baseline Emissions	6,506	2,651	994	10,151
Interim Strategy IS3 Emissions	5,667	1,526	915	8,108
Emission Reductions	839	1,125	79	2,043
Interim Strategy 4 (IS4)				
2014 Baseline Emissions	6,506	2,651	994	10,151
Interim Strategy IS4 Emissions	5,533	1,831	915	8,279
Emission Reductions	973	820	79	1,872
Final Strategy (SCR Option) [c]				
2014 Baseline Emissions	6,506	2,651	994	10,151
Final Strategy—SCR Option	2,410	1,970	994	5,374
Emission Reductions	4,096	681	0	4,777
Final Strategy (Shutdown Option) [d]				
2014 Baseline Emissions	6,506	2,651	994	10,151
Final Strategy—Shutdown Option	1,366	1,080	512	2,958
Emission Reductions	5,140	1,571	482	7,193

[a] ADEQ assumed all scenarios would have the same average heat input rate and same percentage of the annualized utilization factor without curtailment. For the interim strategies, ADEQ adjusted the utilization factors to reflect the corresponding amount of Unit 1 curtailment required for each option. Since these are adjustments to the annual utilization rate for each year, they account for interim strategies that cross calendar years.

[b] Detailed emission calculations for the 2014 Baseline and Interim Strategy can be found in Tables 2, 3, and 4 of the Coronado Regional Haze SIP TSD (July 19, 2016).

[c] See, Coronado SIP Revision Addendum, Table 2 (November 19, 2016).

[d] *Id.*

We propose to find that ADEQ has met the requirement for an analysis of the projected emissions reductions achievable through the alternative measure under 40 CFR 51.308(e)(2)(i)(D). As explained in the previous section, Arizona appropriately used the 2014 Baseline for calculating emissions reductions achievable with the Coronado BART Strategy and emissions reductions achievable with the Coronado BART Alternative.

c. Determination That the Alternative Achieves Greater Reasonable Progress Than Would Be Achieved Through the Installation and Operation of BART

Pursuant to 40 CFR 51.308(e)(2)(i)(E), the State must provide a determination under 40 CFR 51.308(e)(3) or otherwise based on the clear weight of evidence that the alternative achieves greater reasonable progress than BART. Two different tests for determining whether the alternative achieves greater reasonable progress than BART are outlined in 40 CFR 51.308(e)(3). If the distribution of emissions is not substantially different than under BART, and the alternative measure results in greater emission reductions, then the alternative measure may be deemed to achieve greater reasonable progress. If the distribution of emissions is significantly different, then the State must conduct dispersion modeling to determine differences in visibility between BART and the trading program for each impacted Class I area for the worst and best 20 percent days. The modeling would demonstrate ''greater reasonable progress'' if both of the following two criteria are met: (1) Visibility does not decline in any Class I area; and (2) there is an overall improvement in visibility, determined by comparing the average differences between BART and the alternative over all affected Class I areas. This modeling test is sometimes referred to as the ''two-prong test.''

In the Coronado SIP Revision, ADEQ separately analyzed the three options under the Interim Strategy and the Final Strategy under 40 CFR 51.308(e)(3).[31]

i. BART Alternative Interim Strategy

ADEQ determined that the Interim Strategy will not necessarily achieve greater emissions reductions than the BART Control Strategy because, while each option under the Interim Strategy will result in greater reductions in SO_2 and PM_{10} than the BART Control Strategy, each option will also result in higher NO_X emissions. Therefore, ADEQ relied on the results of air quality modeling (using the Comprehensive Air Quality Model with Extensions (''CAMx'') model) performed by SRP's contractor, Ramboll Environ, to demonstrate that the Interim Strategy would result in ''greater reasonable progress'' under the two-prong test in 40 CFR 51.308(e)(3).[32] CAMx has a scientifically current treatment of chemistry to simulate the transformation of emissions into visibility-impairing particles of species such as ammonium nitrate and ammonium sulfate, and is often employed in large-scale modeling when

[31] ADEQ also included a ''Supplemental Analysis of IMPROVE Monitoring Data'' that it considered relevant to the determination of whether the Coronado BART Alternative is better than BART. *See* Coronado SIP Revision (July 19, 2016) pages 9–10. However, because the State made a demonstration under 40 CFR 51.308(e)(3), rather than a ''clear weight of evidence'' demonstration under 40 CFR 51.308(e)(2)(i)(E), these monitoring data are not directly relevant and we have not considered them in our evaluation of the SIP.

[32] Coronado SIP Revision (July 19, 2016), pages 6–8.

many sources of pollution and/or long transport distances are involved. Photochemical grid models like CAMx include all emissions sources and have realistic representations of formation, transport, and removal processes of the particulate matter that causes visibility degradation.

The Coronado modeling followed a modeling protocol [33] that was reviewed by the EPA. The starting point for the modeling was modeling done as part of the Western Regional Air Partnership's West-side Jumpstart Air Quality Modeling Study (''WestJump''), which used a 2008 meteorology and emissions base case, and covered the entire western United States.[34] For the Coronado modeling work, Ramboll Environ reduced the modeling domain to an area within 300 kilometers of the facility and carried out a new model performance evaluation. The initial and boundary conditions for this domain were taken from WestJump modeling of sources for the entire western United States. For the two-prong test, an existing projected 2020 emissions database was used to estimate emissions of sources in Arizona (other than Coronado) and New Mexico. The 2020 emissions case is likely to be more representative of air quality conditions when the Coronado BART Control Strategy is implemented than the 2008 database. In the 2020 modeling, the Coronado emissions were set to appropriate levels for the 2014 Baseline, the Coronado BART Control Strategy, and the various Interim Strategy options, as shown in Table 5. Emission factors for Coronado for the modeling are identical to the emissions limits for the Coronado BART Alternative described in Table 1, except that the Interim Strategy in the Coronado SIP revision includes a more stringent SO_2 emission limit of 0.060 lb/MMBtu for IS2 compared to the modeled value of 0.070 lb/MMBtu. In addition, the modeling does not reflect the plant-wide SO_2 emissions cap of 1,970 tpy included in the Coronado SIP revision.

TABLE 5—EMISSION FACTORS FOR SO_2 AND NO_X AND CURTAILMENT PERIODS USED TO MODEL THE 2014 BASELINE, CORONADO BART CONTROL STRATEGY, AND INTERIM STRATEGY AT CORONADO

Control strategy	Unit 1 (lb/MMBtu)		Unit 2 (lb/MMBtu)		Unit 1 curtailment period
	NO_X	SO_2	NO_X	SO_2	
2014 Baseline	0.320	0.080	0.080	0.080	N/A
Coronado BART Control Strategy	0.065	0.080	0.080	0.080	N/A
Interim Strategy:					
IS2	0.320	[b] 0.070	0.080	[b] 0.070	October 21–January 31
IS3	0.320	0.050	0.080	0.050	November 21–January 20
IS4	0.310	0.060	0.080	0.060	November 21–January 20

[a] As noted above, this scenario reflects 2008 CD controls, which include new wet FGD and LNB with OFA on both units, and SCR on Unit 2.
[b] Although these emission factors were used for modeling, the final SIP submission adopted a lower SO_2 emission limit for IS2 for both Units 1 and 2 of 0.060 lb/MMBtu.

The CAMx-modeled concentrations for sulfate, nitrate, and other chemical species were tracked for Coronado using the CAMx Particulate Source Apportionment Technology (PSAT) Probing Tool, so that the concentrations and visibility impacts due to Coronado could be separated out from those due to the total of all modeled sources. PSAT provides air quality contributions from the emissions of Coronado in a single step and avoids the extra work needed in the simple subtraction approach, which would require additional modeling runs (with and without Coronado emissions) and a subtraction step to estimate the air quality contributions of Coronado emissions.

Ramboll Environ computed visibility impairment due to Coronado using the Interagency Monitoring of Protected Visual Environments (IMPROVE) equation,[35] following a procedure recommended by the Federal Land Managers.[36] Ramboll Environ then subtracted the deciview (dv) [37] visibility impairment due to natural background concentrations from the deciview impairment due to the sum of Coronado and natural background concentrations. This difference gives the visibility impact or ''delta deciviews'' solely due to Coronado. Thus, although the CAMx modeled concentrations realistically reflect the interactions of all sources, the Coronado visibility impacts were assessed relative to natural conditions, similar to the procedure followed in BART assessments.[38]

For the first prong of the modeling test, Ramboll Environ computed the difference between the delta deciviews for each Interim Strategy option and the delta deciviews for the 2014 Baseline for each Class I area. Ramboll Environ then averaged these differences over the best 20 percent of days, the worst 20 percent of days, and for the full year. The results are shown in Table 6 and Table 7. Based on these results, ADEQ concluded that that the Interim Strategy will result in improved visibility at all affected Class I areas compared with baseline conditions on the worst and best 20 percent of days and therefore meets the first prong of the modeling test in 40 CFR 51.308(e)(3).

[33] ''Draft Modeling Plan for Conducting Better-than-BART Analysis for the Coronado Generating Station using a Photochemical Grid Model—Revision#1'', 06–35855A, Prepared for Salt River Project, Ramboll Environ US Corporation (August 2015).

[34] *https://www.wrapair2.org/WestJumpAQMS.aspx.*

[35] IMPROVE refers to a monitoring network and also to the equation used to convert monitored concentrations to visibility impacts. ''Revised IMPROVE Algorithm for Estimating Light Extinction from Particle Speciation Data'', IMPROVE technical subcommittee for algorithm review, January 2006, *http://vista.cira.colostate.edu/Improve/gray-literature/.*

[36] Federal Land Managers' Air Quality Related Values Work Group (FLAG), Phase I Report—Revised, National Park Service, 2010

[37] The Regional Haze Rule establishes the deciview as the principal metric for measuring visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions. Visibility expressed in deciviews is determined by using air quality measured or modeled concentrations to estimate light extinction using the IMPROVE, and then transforming the value of light extinction to deciviews using the logarithm function.

[38] *See* 40 CFR part 51, appendix Y section IV.D.5 (''Calculate the model results for each receptor as the change in deciviews compared against natural visibility conditions.'')

TABLE 6—PRONG 1 TEST—DELTA DECIVIEW DIFFERENCES OF VISIBILITY CONDITIONS BETWEEN BASELINE AND INTERIM STRATEGY

[Baseline—Interim Strategy]

Class I area	Average best 20% Days			Average worst 20% Days			Annual average		
	IS2	IS3	IS4	IS2	IS3	IS4	IS2	IS3	IS4
Bandalier NM	0.0021	0.0021	0.0020	0.0043	0.0050	0.0043	0.0017	0.0024	0.0019
Bosque	0.0012	0.0016	0.0015	0.0011	0.0015	0.0013	0.0015	0.0023	0.0018
Chiricahua NM	0.0010	0.0014	0.0012	0.0001	0.0004	0.0003	0.0005	0.0009	0.0007
Chiricahua Wild	0.0011	0.0016	0.0014	0.0001	0.0004	0.0003	0.0006	0.0009	0.0007
Galiuro Wild	0.0012	0.0016	0.0013	0.0001	0.0004	0.0003	0.0004	0.0007	0.0006
Gila Wild	0.0040	0.0044	0.0040	0.0002	0.0007	0.0005	0.0023	0.0030	0.0025
Grand Canyon NP	0.00002	0.0001	0.00004	0.0003	0.0006	0.0004	0.0009	0.0012	0.0009
Mazatzal Wild	0.0032	0.0025	0.0028	0.0003	0.0008	0.0006	0.0008	0.0010	0.0008
Mesa Verde NP	0.0003	0.0004	0.0004	0.0015	0.0015	0.0011	0.0018	0.0022	0.0017
Mount Baldy Wild	0.0072	0.0069	0.0070	0.0033	0.0024	0.0017	0.0039	0.0042	0.0035
Petrified Forest NP	0.0021	0.0021	0.0020	0.0027	0.0034	0.0031	0.0078	0.0080	0.0068
Pine Mountain Wild	0.0023	0.0021	0.0023	0.0002	0.0007	0.0004	0.0008	0.0011	0.0009
Saguro NP	0.0004	0.0010	0.0007	0.0002	0.0003	0.0002	0.0004	0.0006	0.0004
San Pedro Parks Wild	0.0023	0.0022	0.0021	0.0040	0.0031	0.0025	0.0024	0.0032	0.0026
Sierra Ancha[a] Wild	.....	.....	.....	.....	.....	.....	0.0015	0.0017	0.0014
Superstition Wild	0.0058	0.0067	0.0060	0.0005	0.0004	0.0003	0.0012	0.0015	0.0013
Sycamore Canyon Wild	0.0003	0.0008	0.0004	0.0006	0.0008	0.0006	0.0007	0.0013	0.0009

[a] The IMPROVE visibility database has missing data for some key dates, so best and worst 20 percent of days could not be estimated for the Sierra Ancha area.

TABLE 7—MINIMUM DELTA DECIVIEW DIFFERENCES AMONG AFFECTED CLASS I AREAS BETWEEN INTERIM STRATEGY AND BASELINE AT CLASS I AREAS (BASELINE—INTERIM STRATEGY)[a]

Interim operating strategy	Average best 20% days		Average worst 20% days		Annual average	
	Absolute (dv)	Relative (%)	Absolute (dv)	Relative (%)	Absolute (dv)	Relative (%)
IS2	0.00002	3.65	0.0001	7.30	0.0004	13.75
IS3	0.00010	11.55	0.0003	13.67	0.0006	18.73
IS4	0.00004	6.06	0.0002	9.86	0.0004	15.36

[a] Coronado SIP Revision (July 19, 2016), Table 2. The selection of the Class I area with the minimum value (least incremental benefit from the Alternative Strategy compared to BART) was based on the absolute deciview levels. The relative difference for that Class I area is shown for informational purposes also.

For the second prong of the modeling test, Ramboll Environ computed the difference between the delta deciviews for each Interim Strategy option and the delta deciviews for the Coronado BART Control Strategy. Ramboll Environ then compared the average differences between the Coronado BART Control Strategy and the Interim Strategy over all affected Class I areas to ensure that there is an overall improvement in visibility. Based on these modeling results, as shown in Table 8, ADEQ concluded that the Interim Strategy also meets this prong, as these results indicate that the Interim Strategy would result in improved visibility, on average, across all Class I Areas, compared with the Coronado BART Control Strategy on the worst and best 20 percent of days.[39]

TABLE 8—PRONG 2 TEST—DELTA DECIVIEW DIFFERENCES OF VISIBILITY CONDITIONS BETWEEN CORONADO BART CONTROL STRATEGY AND INTERIM STRATEGY

[BART-Interim Strategy][a]

Class I area	Average best 20% days			Average worst 20% days			Annual average		
	IS2	IS3	IS4	IS2	IS3	IS4	IS2	IS3	IS4
Bandalier NM	0.0009	0.0009	0.0008	0.0011	0.0018	0.0011	−0.0001	0.0005	0.0001
Bosque	0.0001	0.0005	0.0003	0.0001	0.0006	0.0004	−0.0003	0.0004	−0.0001
Chiricahua NM	−0.0011	−0.0007	−0.0009	0.0000	0.0002	0.0001	−0.0002	0.0001	−0.0001
Chiricahua Wild	−0.0011	−0.0006	−0.0009	0.0000	0.0003	0.0001	−0.0002	0.0002	−0.0001
Galiuro Wild	0.0003	0.0006	0.0004	−0.0001	0.0002	0.0000	−0.0001	0.0002	0.0000
Gila Wild	0.0009	0.0013	0.0009	−0.0001	0.0003	0.0001	−0.0004	0.0003	−0.0002
Grand Canyon NP	−0.0001	−0.0001	−0.0001	−0.0003	0.0000	−0.0001	0.0003	0.0007	0.0004
Mazatzal Wild	−0.0009	−0.0015	−0.0012	−0.0004	0.0002	−0.0001	−0.0001	0.0001	−0.0001
Mesa Verde NP	0.0001	0.0002	0.0002	0.0008	0.0008	0.0003	0.0011	0.0016	0.0010
Mount Baldy Wild	0.0034	0.0030	0.0032	−0.0003	−0.0012	−0.0018	−0.0012	−0.0008	−0.0016
Petrified Forest NP	0.0015	0.0015	0.0013	−0.0004	0.0004	0.0000	0.0018	0.0020	0.0008
Pine Mountain Wild	−0.0007	−0.0009	−0.0007	0.0000	0.0004	0.0002	0.0001	0.0003	0.0001
Saguro NP	−0.0003	0.0003	0.0000	0.0000	0.0002	0.0001	0.0000	0.0003	0.0001

[39] Although not required under 40 CFR 51.308(e)(3), SRP and ADEQ included annual average modeling results, which also show a greater improvement in visibility on average across all affected Class I areas under the Interim Strategy.

TABLE 8—PRONG 2 TEST—DELTA DECIVIEW DIFFERENCES OF VISIBILITY CONDITIONS BETWEEN CORONADO BART CONTROL STRATEGY AND INTERIM STRATEGY—Continued

[BART-Interim Strategy] [a]

Class I area	Average best 20% days			Average worst 20% days			Annual average		
	IS2	IS3	IS4	IS2	IS3	IS4	IS2	IS3	IS4
San Pedro Parks Wild	0.0003	0.0002	0.0002	0.0013	0.0004	−0.0002	−0.0003	0.0005	−0.0001
Sierra Ancha Wild [b]	.....	.....	.....	.....	.....	.....	0.0003	0.0005	0.0002
Superstition Wild	0.0018	0.0027	0.0020	−0.0001	−0.0001	−0.0003	0.0003	0.0006	0.0003
Sycamore Canyon Wild	−0.0013	−0.0008	−0.0012	0.0001	0.0003	0.0001	0.0002	0.0007	0.0004
Average	0.0002	0.0004	0.0003	0.0001	0.0003	0.00001	0.0001	0.0005	0.0001

[a] Coronado SIP Revision TSD Table 18.
[b] The IMPROVE visibility database has missing data for some key dates, so best and worst 20% of days could not be estimated for the Sierra Ancha area.

We have reviewed the modeling analysis performed by Ramboll Environ and submitted by ADEQ and find that it supports ADEQ's determination that the Interim Strategy would achieve greater reasonable progress than BART under 40 CFR 51.308(e)(3). In particular, we have evaluated the Coronado modeling to confirm that, even though the numerical differences between the scenarios under the two-prong test are small, the results represent real visibility differences and not just the result of numerical artifacts or ''noise'' in the model results. As noted above, the modeling used the CAMx PSAT Probing Tool to track concentrations for sulfate, nitrate, and other chemical species in order to separate out visibility impacts due to Coronado from those of other modeled sources. This PSAT-based approach helps to avoids numerical artifacts in the model results, as compared to the simple subtraction approach, and thus provides assurance that the relatively small numerical values in the modeled differences represent real visibility differences.

In response to a request from the EPA, ADEQ submitted an additional analysis performed by Ramboll Environ to demonstrate that the modeled numerical differences represent real visibility improvements and are not just numerical artifacts.[40] This analysis presented spatial plots of the modeled numerical differences in delta deciviews, for days on which Coronado had the highest delta-deciview impacts at Superstition Wilderness and Mount Baldy Wilderness, the Class I areas for which Coronado had the highest delta deciview impacts on the best and worst 20 percent of days, respectively. There were plots for deciviews computed using all pollutant species, with separate plots for sulfate and nitrate individually, the chemical products of SO_2 and NO_X precursor emissions, respectively. The plots display differences for each grid square of the modeling domain, color-coded by the magnitude of the delta deciview difference. If the differences between the modeled control scenarios were merely numerical artifacts or ''noise,'' they would manifest as random dots of different colors on these plots. Instead, the plots show smoothly changing areas of color, as would be expected in the real atmosphere as conditions vary continuously over the area. In most cases there is a clearly distuiguishable ''plume'' from Coronado, representing the improvement from the Interim Strategy relative to the Coronado BART Control Strategy at locations where Coronado has an impact.

The only plot that shows numerical noise is for a day when an Interim Strategy option and the Coronado BART Control Strategy had the same emissions. For such days, modeled differences would be expected to be zero, except for the effect of numerical noise. This one plot shows some random variation in color in some locations, and also shows that the range of variation is very small, one millionth (10^{-6}) of a deciview or less, which suggests that the maximum numerical artifact is approximately 10^{-6} dv. The smallest deciview difference seen in the prong 2 test was 0.00001 (10^{-5}) dv,[41] which is ten times as large as the estimated 10^{-6} dv maximum numerical artifact. This analysis provides additional evidence that the two test prong results are not just the result of model ''noise,'' but rather indicate actual visibility improvement under the Interim Strategy compared to the Coronado BART Control Strategy and no degradation relative to Baseline.

We also note that the modeling demonstration was done with a higher emission rate for SO_2 for both Units 1 and 2 for scenario IS2 and without the facility-wide SO_2 emissions cap that was included in the final SIP revision. When these restrictions on SO_2 emissions are considered, they will result in additional improvements in visibility under the Interim Strategy, as compared with the modeling results.

Finally, we note that 40 CFR 51.308(e)(3) does not specify a minimum delta deciview difference between the modeled scenarios that must be achieved in order for a BART alternative to be deemed to achieve greater reasonable progress than BART. Rather, it allows for a straight numerical test, regardless of the magnitude of the computed differences. Accordingly, given that the modeling results submitted by ADEQ show that the Interim Strategy will result in improved visibility at all affected Class I areas compared with 2014 Baseline Emissions (prong 1) and will result in improved visibility, on average, across all Class I areas, compared with the Coronado BART Control Strategy (prong 2), we propose to find that ADEQ has demonstrated that the Interim Strategy will achieve greater reasonable progress than BART under the two-prong modeling test in 40 CFR 51.308(e)(3).

ii. BART Alternative Final Strategy

With respect to the Final Strategy, ADEQ did not conduct modeling but did provide a summary of expected emissions under the Final Strategy, as compared with the Coronado BART Control Strategy, as shown in Table 9. ADEQ explained that emissions of NO_X and PM_{10} would be equivalent under the SCR Option and the Coronado BART Control Strategy, but emissions of SO_2 would be lower under the Final Strategy than under the Coronado BART Control Strategy. [42] The Shutdown Option would result in greater emission reductions for all three visibility-impairing pollutants (*i.e.,* SO_2, NO_X,

[40] Coronado SIP Revision, Appendix D.5 Responsiveness Summary, Appendix A: Memorandum SRP Submitted to ADEQ Regarding Numerical Noise Issues Associated with CAMx Modeling: ''To address the EPA comment regarding whether the CGS Better-than-BART CAMx analysis is influenced by numerical 'noise', Memorandum from Lynsey Parker and Ralph Morris, Ramboll Environ, September 22, 2016.

[41] *See* Table 8, average across all Class I areas for average worst 20% days under IS4.

[42] Addendum to the Coronado SIP Revision, page 5, section 3.1.2.

and PM) compared with the Coronado BART Control Strategy.

TABLE 9—ESTIMATED EMISSIONS FOR NO_X, PM, AND SO_2 UNDER THE CORONADO BART CONTROL STRATEGY AND THE FINAL STRATEGY

Scenario	Unit	SO_2		NO_X		PM	
		Annual emissions (tpy)	Combined emissions of unit 1 and unit 2 (tpy)	Annual emissions (tpy)	Combined emissions of unit 1 and unit 2 (tpy)	Annual emissions (tpy)	Combined emissions of unit 1 and unit 2 (tpy)
Coronado BART Control Strategy.	Unit 1	1,285	2,651	1,044	2,410	482	994
	Unit 2	1,366		1,366		512	
Final Strategy—SCR	Unit 1	964	[a] 1,970	1,044	2,410	482	994
	Unit 2	1,025		1,366		512	
Final Strategy—Shutdown	Unit 1	0	[a] 1,080	0	1,366	0	512
	Unit 2	1,025		1,366		512	

[a] annual emission cap.

The emission reductions associated with the Final Strategy will occur after 2018, which, as explained below, is the deadline for achieving all necessary emissions reduction under a BART alternative. Therefore, the Final Strategy by itself clearly would not meet the requirements for a BART alternative. Nevertheless, in order to ensure that the Coronado BART Alternative as a whole will result in greater reasonable progress than BART, we have considered whether the Final Strategy, once it is implemented, will provide for ongoing visibility improvement, as compared with the BART Control Strategy. In particular, we have evaluated whether the Final Strategy meets both criteria of the greater-emissions-reduction test under 40 CFR 51.308(e)(3), *i.e.,* that the distribution of emissions under the alternative measure is not substantially different than under BART and that the alternative measure results in greater emission reductions than BART. Because all emissions under both the Coronado BART Control Strategy and the Final Strategy are from Coronado, it is clear that the distribution of emissions is not substantially different under the two strategies. Furthermore, because both the SCR Option and the Shutdown Option would provide for an aggregate reduction in visibility-impairing pollutants and no increases in any single pollutant, as compared with the Coronado BART Control Strategy, we conclude that the Final Strategy will result in greater emission reductions than the Coronado BART Control Strategy. Therefore, we propose to find that implementation of the Final Strategy will ensure that the Coronado BART Alternative will continue to achieve greater reasonable progress than the BART Control Strategy after 2025.

In summary, we propose to find that ADEQ has demonstrated that the Interim Strategy will achieve greater reasonable progress than the Coronado BART Control Strategy through 2025 and that the Final Strategy will ensure greater reasonable progress after 2025. Therefore, we propose to find that ADEQ properly determined under 40 CFR 51.308(e)(2)(i)(E) that the Coronado BART Alternative will achieve greater reasonable progress than would be achieved through the installation and operation of BART at Coronado.

2. Requirement that all necessary emission reductions take place during period of first long-term strategy.

Pursuant to 40 CFR 51.308(e)(2)(iii), the State must ensure that all necessary emission reductions take place during the period of the first long-term strategy for regional haze, *i.e.,* by December 31, 2018. The Regional Haze Rule further provides that, to meet this requirement, the State must provide a detailed description of the alternative measure, including schedules for implementation, the emission reductions required by the program, all necessary administrative and technical procedures for implementing the program, rules for accounting and monitoring emissions, and procedures for enforcement.[43]

As noted above, the Coronado SIP Revision incorporates the Coronado Permit Revision, which includes conditions implementing both the Interim and Final Strategies. In addition to the emission limitations for NO_X, PM_{10}, and SO_2 listed in Table 1 above, the Coronado Permit Revision includes compliance dates, operation and maintenance requirements, and monitoring, recordkeeping, and reporting requirements.

The compliance date for the Interim Strategy in the Coronado Permit Revision is December 5, 2017. Accordingly, the Coronado SIP Revision ensures that all emission reductions associated with the Interim Strategy will occur by December 31, 2018 and, as explained before, those emissions reductions by themselves are sufficient to ensure greater reasonable progress under the two-prong modeling test under 40 CFR 51.308(e)(3). While the compliance dates for the Final Strategy in the Coronado Permit Revision are later than December 31, 2018, the Final Strategy and its associated emission reductions are not necessary to demonstrate that the Coronado BART Alternative will achieve greater reasonable progress than BART during the period of the first long-term strategy. Rather, as stated before, the Final Strategy and its associated emissions reductions will ensure that the Coronado BART Alternative will continue to achieve greater reasonable progress than the BART Control Strategy after 2025. Therefore, we propose to find that the Coronado SIP Revision will ensure that all necessary emission reductions take place during the period of the first long-term strategy and therefore meets the requirements of 40 CFR 51.308(e)(2)(iii).

3. Demonstration that emissions reductions from alternative measure will be surplus.

Pursuant to 40 CFR 51.308(e)(2)(iv), the SIP must demonstrate that the emissions reductions resulting from the alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP. The baseline date for regional haze

[43] 40 CFR 51.308(e)(2)(iii).

SIPs is 2002.[44] As noted by ADEQ, all of the emission reductions required by the Coronado BART Alternative are surplus to reductions resulting from measures applicable to Coronado as of 2002.[45] Therefore, we propose to find that the Coronado BART Alternative complies with 40 CFR 51.308(e)(2)(iv).

In sum, we propose to find that the Coronado BART Alternative meets all of the applicable requirements of 40 CFR 51.308(e)(2).

C. The EPA's Evaluation of Other Applicable Requirements

1. Enforceable Emission Limits

CAA section 110(a)(2)(A) requires SIPs to include enforceable emissions limitations as necessary or appropriate to meet the applicable requirements of the CAA. In order to be considered enforceable, emission limits must include associated monitoring, recordkeeping, and reporting requirements. In addition, the CAA and the EPA's implementing regulations expressly require SIPs to include regulatory requirements related to monitoring, recordkeeping, and reporting for applicable emissions limitations.[46] We have reviewed the Coronado Permit Revision and found that it includes the appropriate NO_X, SO_2, and PM_{10} emission limits for the BART Alternative, as well as the associated monitoring, recordkeeping, and reporting requirements.[47] Therefore, we propose to find that the Coronado SIP Revision meets the requirements of the CAA and the EPA's implementing regulations for enforceable emission limitations.

2. Non-Interference With Applicable Requirements

The CAA requires that any revision to an implementation plan shall not be approved by the Administrator if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (RFP) or any other applicable requirement of the CAA.[48] The EPA has promulgated health-based standards, known as the national ambient air quality standards (NAAQS), for six common pollutants: PM, ozone, carbon monoxide (CO), SO_2, nitrogen dioxide (NO_2), and lead (Pb). Using a process that considers air quality data and other factors, the EPA designates an area as ''nonattainment'' if the area does not meet the NAAQS or contributes to violations of a NAAQS in a nearby area. RFP, as defined in section 171 of the CAA, is related to attainment of the NAAQS and means annual incremental reductions in emissions of the relevant air pollutant(s) for the purpose of ensuring timely attainment of the applicable NAAQS.

The Coronado SIP Revision includes a demonstration of ''non-interference'' under CAA section 110(l).[49] In particular, ADEQ considered whether the Coronado SIP Revision would interfere with any applicable requirement concerning attainment or RFP, or any other applicable requirement of the CAA. A summary of ADEQ's analysis and our evaluation of that analysis follows.

a. Demonstration of Non-Interference With NAAQS Attainment and RFP Requirements

ADEQ noted that Coronado is located near St. Johns, Arizona in Apache County, which is designated as ''in attainment,'' ''unclassifiable/attainment,'' or ''unclassifiable'' for the following NAAQS: CO, Pb, NO_2, ozone (2008 NAAQS), $PM_{2.5}$ (1997, 2006, and 2012 NAAQS), PM_{10}, and SO_2 (1971 NAAQS). ADEQ also noted that it has recommended an attainment/unclassifiable designation for this area for the 2010 SO_2 NAAQS, but the area has not yet been designated. The state has also recommended an attainment/unclassifiable designation as part of the ongoing designations process for the 2015 ozone NAAQS, but the area does not have a final designation.[50] ADEQ's demonstration of non-interference with attainment focused on the NAAQS for $PM_{2.5}$, PM_{10}, SO_2, NO_2, and ozone because ambient levels of these pollutants are affected by emissions of PM_{10}, SO_2, and/or NO_X, which are the pollutants of concern from Coronado.

With repect to the $PM_{2.5}$ and PM_{10} NAAQS, ADEQ noted that the curtailment periods under the Interim Strategy would result in additional $PM_{2.5}$ and PM_{10} reductions beyond those currently required in the Arizona Regional Haze SIP. With respect to the Final Strategy, ADEQ explained that, while the Shutdown Option would significantly reduce facility-wide PM emissions compared to the Coronado BART Control Strategy, the SCR Option would result in increases in emissions of sulfuric acid mist (H_2SO_4) and thus emissions of PM_{10} and primary $PM_{2.5}$ once the SCR is installed. Nonetheless, citing the TSD for the Coronado Permit Revision, ADEQ explained that ''the dispersion modeling analysis indicates that these emissions increases will comply with the NAAQS for PM_{10} and $PM_{2.5}$'' and that ''both options would achieve significant emission reductions of SO_2 and NO_X . . . , which is an effective strategy for reducing secondary $PM_{2.5}$ formation.'' Given that no nonattainment or maintenance SIPs rely on emission reductions at Coronado to ensure continued attainment of the PM_{10} and $PM_{2.5}$ NAAQS, ADEQ concluded that the Coronado BART Alternative will not result in any interference with attainment or maintenance of the PM_{10} and $PM_{2.5}$ NAAQS or with RFP requirements for these NAAQS.

We concur with ADEQ's demonstration of non-interference with the PM_{10} and $PM_{2.5}$ NAAQS attainment, maintenance, and RFP requirements. The area where Coronado is located is designated unclassifiable/attainment or unclassifiable for each of the PM_{10} and $PM_{2.5}$ NAAQS, so there are no nonattainment or maintenance SIPs or FIPs that rely on emission reductions at Coronado to ensure attainment of the PM_{10} and $PM_{2.5}$ NAAQS. Under the Interim Strategy and the Shutdown Option of the Final Strategy, the Coronado BART Alternative will result in greater reductions of PM_{10} and $PM_{2.5}$ than would otherwise be required under the applicable implementation plan for Arizona (including both the PM_{10} emission limits for Coronado in the approved Arizona Regional Haze SIP and the associated monitoring, recordkeeping and reporting requirements in the Arizona Regional Haze FIP). While the SCR Option under the Final Strategy would allow for a small increase (compared to existing SIP and FIP requirements) in emissions of PM_{10} and primary $PM_{2.5}$ when the SCR is installed, we find that ADEQ has demonstrated that these increases will not result in any interference with attainment or maintenance of the PM_{10} and $PM_{2.5}$ NAAQS or with RFP requirements for these NAAQS.

With respect to the SO_2 NAAQS, ADEQ determined that all options under

[44] See Memorandum from Lydia Wegman and Peter Tsirigotis, 2002 Base Year Emission Inventory SIP Planning: 8-hr Ozone, $PM_{2.5}$, and Regional Haze Programs, November 8, 2002. *https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20021118_wegman_2002_base_year_emission_sip_planning.pdf.*

[45] *Id.,* page 9, section 2.3.5.

[46] *See, e.g.,* CAA section 110(a)(2)(F) and 40 CFR 51.212(c).

[47] The spreadsheet titled ''FIP Requirement comparison.xlsx'' in the docket for this action compares the requirements for Coronado in the Arizona Regional Haze FIP and the parallel requirements in the Coronado Permit Revision.

[48] CAA Section 110(l), 42 U.S.C. 7410(l).

[49] Coronado SIP Revision (July 19, 2016) pages 10–15 and Addendum pages 6–7.

[50] Coronado SIP Revision (July 19, 2016), Table 5, page 12. ADEQ has also recommended that Apache County be designated as attainment/unclassifiable for the 2015 ozone NAAQS. *See* Letter from Douglas Ducey, Arizona, to Alexis Strauss, EPA (September 27, 2016).

the Interim Strategy and the Final Strategy would result in SO_2 emissions that are equal to or lower than allowed under the Arizona Regional Haze SIP. Given that no nonattainment or maintenance SIPs rely on emission reductions at Coronado to ensure continued attainment of the SO_2 NAAQS, ADEQ concluded that the Coronado BART Alternative will not result in any interference with attainment or maintenance of the SO_2 NAAQS or with RFP requirements.

We concur with ADEQ's demonstration of non-interference with the SO_2 NAAQS attainment, maintenance, and RFP requirements. The area where Coronado is located has not yet been designated under the 2010 SO_2 NAAQS, so there are no nonattainment or maintenance SIPs or FIPs that rely on emission reductions at Coronado to ensure attainment of the SO_2 NAAQS. Furthermore, during both the Interim Strategy and the Final Strategy, implementation of the Coronado BART Alternative will result in greater SO_2 reductions than would otherwise be required under the applicable implementation plan for Arizona (including both the SO_2 emission limits for Coronado in the approved Arizona Regional Haze SIP and the associated monitoring, recordkeeping and reporting requirements in the Arizona Regional Haze FIP). Therefore, it is clear that the implementation of the Coronado BART Alternative will not result in any interference with attainment or maintenance of the SO_2 NAAQS or with RFP requirements for the SO_2 NAAQS.

With respect to the NO_2 and ozone NAAQS, ADEQ noted that both the Interim Strategy and the Final Strategy would require additional NO_X reductions beyond those required in the Arizona Regional Haze SIP, but that the Interim Strategy would require fewer NO_X reductions than the Arizona Regional Haze FIP. Nonetheless, ADEQ explained that Apache County does not rely on the Arizona Regional Haze FIP to ensure continued attainment of the NO_2 and ozone NAAQS or to meet any RFP requirements and that facility-wide emissions of NO_X at Coronado will continue to be reduced under the Coronado BART Alternative compared to current levels. Therefore, ADEQ concluded that the BART Alternative will not result in any interference with attainment or maintenance of the NO_2 or ozone NAAQS or with RFP requirements for these NAAQS.

We concur with ADEQ's demonstration of non-interference with the NO_2 and ozone NAAQS attainment, maintenance, and RFP requirements. Coronado is located in an area that is designated unclassifiable/attainment for the NO_2 NAAQS and the 2008 ozone NAAQS and has not yet been designated for the 2015 ozone NAAQS, so there are no nonattainment or maintenance SIPs or FIPs that rely on emission limitations at Coronado to satisfy any attainment or RFP requirements for ozone or NO_2. Acordingly, while the Coronado SIP Revision requires fewer NO_X reductions than the Arizona Regional Haze FIP between December 5, 2017 and December 31, 2025, these additional reductions are not necessary for purposes of attainment and maintenance of the NAAQS or for RFP.

In summary, because the Coronado SIP Revision will require equivalent or lower emissions of NO_X, PM and SO_2 for all future years, compared to the emission levels currently allowed under the applicable implementation plan (including both the Arizona Regional Haze SIP and the Arizona Regional Haze FIP), in an area that is designated in attainment, unclassifiable/attainment, or unclassifiable, or has not yet been designated for all NAAQS, we propose to find that the Coronado SIP Revision would not interfere with any applicable requirements concerning attainment or RFP.

b. Demonstration of Non-Interference With Other CAA Requirements

ADEQ explained that the following ''other applicable requirements'' are potentially relevant to the Coronado SIP Revision:

- Regional Haze under sections 169A and 169B of the CAA
- Prevention of Significant Deterioration (PSD)
- Maximum Achievable Control Technology (MACT) for Air Toxics
- New Source Performance Standards (NSPS)

With respect to PSD, ADEQ referred to the TSD for the Coronado Permit Revision,[51] which provides ADEQ's best available control technology determination for H_2SO_4, PM_{10}, and $PM_{2.5}$, as well as NAAQS and PSD increment modeling for PM_{10} and $PM_{2.5}$. We concur with ADEQ that the documentation for the Coronado Permit Revision establishes that the Coronado SIP Revision would not interefere with the PSD requirements of the CAA. Furthermore, implementation of the Coronado BART Alternative would not affect compliance with the applicable MACT or NSPS requirements. Therefore, we propose to find that the Coronado SIP Revision would not interfere with these requirements.

With respect to Regional Haze requirements, ADEQ noted that during implementation of both the Interim Strategy and the Final Strategy, the Coronado BART Alternative will result in greater reasonable progress towards natural visibility conditions than the Coronado BART Control Strategy. For the reasons explained above, we agree that ADEQ has demonstrated that the Coronado BART Alternative would result in greater reasonable progress than the Coronado BART Control Strategy. Therefore, we propose to find that the Coronado SIP Revision would not interfere with the visibility protection requirements of the CAA.

Finally, although not expressly addressed by the State in its submittal, we have considered whether the curtailment requirements under the Interim Strategy in the Coronado SIP Revision would interefere with the requirements of CAA section 123 concerning dispersion techniques. Section 123 provides that the degree of emission limitation required by a SIP may not be affected by ''any other dispersion technique,'' which is defined to include ''intermittent or supplemental control of air pollutants varying with atmospheric conditions.'' [52] The EPA's implementing regulations for CAA section 123 define ''intermittent control system'' as ''a dispersion technique which varies the rate at which pollutants are emitted to the atmosphere according to meteorological conditions and/or ambient concentrations of the pollutant, in order to prevent ground-level concentrations in excess of applicable ambient air quality standards.'' [53] The curtailment periods in the Interim Strategy do not allow for varied emission rates according to meteorological conditions and/or ambient concentrations of the pollutant. Rather, the curtailment period for each year is selected based on recent and expected emission control performance, regardless of meteorological conditions and ambient pollutant concentrations. In addition, the curtailment periods are not intended to prevent violations of ambient air quality standards. Therefore, we propose to find the curtailment requirements comply with CAA Section 123.

In summary, we propose to find that that the Coronado SIP Revision would not interfere with any applicable requirements of the CAA.

[51] Coronado Permit Revision, Appendix C.

[52] 42 U.S.C. 7423(a) and (b).

[53] 40 CFR 51.100(nn).

IV. The EPA's Proposed Action

For the reasons described above, the EPA proposes to approve the Coronado SIP Revision into the Arizona SIP. Because this approval would fill the gap in the Arizona Regional Haze SIP left by the EPA's prior partial disapproval with respect to Coronado, we also propose to withdraw the provisions of the Arizona Regional Haze FIP that apply to Coronado. Finally, we are proposing revisions to 40 CFR part 52 to codify the removal of those portions of the Arizona Regional Haze SIP that have either been superseded by previously approved revisions to the Arizona SIP or would be superseded by final approval of the Coronado SIP Revision.

V. Environmental Justice Considerations

As explained above, the Coronado SIP Revision will result in reduced emissions of both SO_2 and PM_{10} compared to the existing Arizona Regional Haze SIP and FIP requirements. While the Coronado SIP Revision will result in fewer NO_X reductions than the Arizona Regional Haze FIP would have required between 2018 and 2025, it will ensure that NO_X emissions remain at or below current levels until 2025, after which it will require NO_X emissions reductions equivalent to or greater than would have been required under the Arizona Regional Haze FIP. Furthermore, Coronado is located in area that is designated attainment, unclassifiable/attainment, or unclassifiable, or has not yet been designated for each of the current NAAQS. Therefore, the EPA believes that this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations.

VI. Incorporation by Reference

In this rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the state permit provisions described in the proposed amendments to 40 CFR part 52 set forth below. The EPA has made, and will continue to make, this document available electronically through *www.regulations.gov* and in hard copy at U.S. Environmental Protection Agency, Region IX, AIR–2, 75 Hawthorne Street, San Francisco, CA, 94105–3901.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *http://www2.epa.gov/laws-regulations/laws-and-executive-orders.*

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review. This rule applies to only a single facility and is therefore not a rule of general applicability.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. This rule applies to only a single facility. Therefore, its recordkeeping and reporting provisions do not constitute a ''collection of information'' as defined under 44 U.S.C. 3502(3) and 5 CFR 1320.3(c).

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. Firms primarily engaged in the generation, transmission, and/or distribution of electric energy for sale are small if, including affiliates, the total electric output for the preceding fiscal year did not exceed 4 million megawatt hours. The owner of facility affected by this rule, SRP, exceeds this threshold.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This action 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 the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on any 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 action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards. The EPA is not revising any technical standards or imposing any new technical standards in this action.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in section V above.

K. Determination Under Section 307(d)

Pursuant to CAA section 307(d)(1)(B), the EPA proposes to determine that this action is subject to the provisions of section 307(d). Section 307(d) establishes procedural requirements specific to certain rulemaking actions under the CAA. Pursuant to CAA section 307(d)(1)(B), the withdrawal of the provisions of the Arizona Regional Haze FIP that apply to Coronado is subject to the requirements of CAA section 307(d), as it constitutes a revision to a FIP under CAA section 110(c). Furthermore, CAA section

307(d)(1)(V) provides that the provisions of section 307(d) apply to ''such other actions as the Administrator may determine.'' The EPA proposes that the provisions of 307(d) apply to the EPA's action on the Coronado SIP revision.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Visibility.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: April 20, 2017.

Alexis Strauss,

Acting Regional Administrator, EPA Region IX.

For the reasons set forth in the preamble, the EPA proposes to amend 40 CFR part 52 as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart D—Arizona

■ 2. Section 52.120 is amended by:

■ a. Adding in paragraph (d), under the table heading ''EPA-Approved Source-Specific Requirements'' an entry for ''Coronado Generating Station'' after the entry for ''Cholla Power Plant;''

■ b. Adding in paragraph (e), under the table heading ''Table 1–EPA-Approved Non-Regulatory and Quasi-Regulatory Measures'' an entry for ''Arizona State Implementation Plan Revision to the Arizona Regional Haze Plan for the Salt River Project Coronado Generating Station, excluding Appendix B'' after the entry for ''Arizona State Implementation Plan Revision to the Arizona Regional Haze Plan for Arizona Public Service Cholla Generating Station''.

The additions read as follows:

§ 52.120 Identification of plan.

* * * * *

(d) * * *

EPA-APPROVED SOURCE SPECIFIC REQUIREMENTS

Name of source	Order/permit No.	Effective date	EPA approval date	Explanation
Arizona Department of Environmental Quality				
*	*	*	*	*
Coronado Generating Station.	Permit #64169 (as amended by Significant Revision #63088) Cover Page and Attachment ''E'': BART Alternatives.	December 14, 2016 ...	[Insert date of publication of final rule], [insert **Federal Register** citation of final rule].	Permit issued by Arizona Department of Environmental Quality. Submitted on December 15, 2016.
*	*	*	*	*

* * * * *

(e) * * *

TABLE 1—EPA-APPROVED NON-REGULATORY AND QUASI-REGULATORY MEASURES

[Excluding certain resolutions and statutes, which are listed in tables 2 and 3, respectively] [1]

Name of SIP provision	Applicable geographic or nonattainment area or title/subject	State submittal date	EPA approval date	Explanation
The State of Arizona Air Pollution Control Implementation Plan				
Clean Air Act Section 110(a)(2) State Implementation Plan Elements (Excluding Part D Elements and Plans)				
*	*	*	*	*
Arizona State Implementation Plan Revision to the Arizona Regional Haze Plan for the Salt River Project Coronado Generating Station, excluding Appendix B.	Source-Specific	December 15, 2016 ...	[Insert date of publication of final rule], [Insert **Federal Register** citation of final rule].	BART Alternative for Coronado Generating Station adopted December 14, 2016.
*	*	*	*	*

[1] Table 1 is divided into three parts: Clean Air Act Section 110(a)(2) State Implementation Plan Elements (excluding Part D Elements and Plans), Part D Elements and Plans (other than for the Metropolitan Phoenix or Tucson Areas), and Part D Elements and Plans for the Metropolitan Phoenix and Tucson Areas.

* * * * *

■ 3. Section 52.145 is amended by:
■ a. Removing and reserving paragraph (e)(1).
■ b. Removing paragraphs (e)(2)(iii) through (vi).
■ c. Removing and reserving paragraph (f).

[FR Doc. 2017–08543 Filed 4–26–17; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[CG Docket Nos. 10–51 and 02–123; DA 17–76]

Structure and Practices of the Video Relay Services Program

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission's Consumer and Governmental Affairs Bureau (Bureau or CGB) seeks comment on the scope of application of the technical standard for user equipment and software used with video relay service (VRS) and the extent to which such a rule is necessary and appropriate for functionally equivalent communication.

DATES: Comments are due June 12, 2017. Reply Comments are due July 11, 2017.

ADDRESSES: You may submit comments, identified by CG Docket Nos. 10–51 and 03–123, by any of the following methods:

• *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the Commission's Electronic Comment Filing System (ECFS), through the Commission's Web site *http://apps.fcc.gov/ecfs/*. Filers should follow the instructions provided on the Web site for submitting comments. For ECFS filers, in completing the transmittal screen, filers should include their full name, U.S. Postal service mailing address, and CG Docket Nos. 10–51 and 03–123.

• *Paper Filers:* Parties who choose to file by paper must file an original and one copy 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. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

For detailed instructions for submitting comments and additional information on the rulemaking process, *see* the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Bob Aldrich, Consumer and Governmental Affairs Bureau (202) 418–0996, email *Robert.Aldrich@fcc.gov,* or Eliot Greenwald, Consumer and Governmental Affairs Bureau, (202) 418–2235, email *Eliot.Greenwald@fcc.gov.*

SUPPLEMENTARY INFORMATION: Pursuant to 47 CFR 1.415, 1.419, interested parties may file comments on or before the dates indicated in the **DATES** section. Comments may be filed using the Commission's ECFS. *See Electronic Filing of Documents in Rulemaking Proceedings,* 63 FR 24121 (1998).

• All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St. SW., Room TW–A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes 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 must be addressed to 445 12th Street SW., Washington, DC 20554.

This is a summary of document DA 17–76, *Structure and Practices of the Video Relay Service Program; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities,* Further Notice of Proposed Rulemaking, document DA 17–76, adopted on January 17, 2017 and released on January 17, 2017, in CG Docket Nos. 10–51 and 03–123. The Report and Order, DA 17–76, is published elsewhere in this issue. The full text of document DA 17–76 will be available for public inspection and copying via ECFS, and during regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY–A257, Washington, DC 20554. This proceeding shall be treated as a ''permit-but-disclose'' proceeding in accordance with the Commission's *ex parte* rules. 47 CFR 1.1200 *et seq.* Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with 47 CFR 1.1206(b). In proceedings governed by 47 CFR 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.,* .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (844) 432–2272 (videophone), or (202) 418–0432 (TTY).

Initial Paperwork Reduction Act of 1995 Analysis

Document DA 17–76 does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. In addition, therefore, it 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, *see* 44 U.S.C. 3506(c)(4).

Synopsis

1. The Commission's TRS interoperability and portability rules are intended, among other things, to allow VRS users to make and receive calls through any VRS provider, and to choose a different default provider, without changing the VRS access technology they use to place calls. The Relay User Equipment (RUE) Profile addresses this problem by specifying a basic interface that is intended to enable a user to use the same equipment and software with any default provider without experiencing any inconvenience or disruption of basic communications functions.

2. In document DA 17–76, the Bureau pursuant to authority delegated by the Commission in *Structure and Practices of the Video Relay Service Program, et. al.,* Report and Order, published at 78 FR 40582, July 5, 2013, seeks additional comment on the extent to which adoption of a rule applying the RUE Profile to provider-distributed VRS user equipment and software is necessary and appropriate for functionally equivalent communication.

3. First, the Bureau seeks additional comment on the user experience with provider-supplied user equipment and software. To what extent can users currently use the features and functions of provider-supplied equipment and software when making and receiving calls through other providers, or after switching to another default provider? To the extent that user equipment and software supplied by one provider performs less effectively with other providers, which functions are most problematic? Do the answers to these questions vary depending on the specific user equipment and software used by a consumer, and if so, how? How feasible is it currently for third parties, including open source and academic institutions, to innovate in providing new relay user equipment or to provide relay user equipment tailored to specific user groups or application scenarios, such as customer service or government call centers or public safety answering points (PSAPs)?

4. Second, the Bureau seeks comment on the appropriate scope of application of the RUE Profile. There are a number of possible approaches. One possible approach could be to require RUE compliance for all user equipment and software, including equipment and software provided prior to the designated compliance deadline. As an alternative, to avoid imposing retrofitting costs on VRS providers, the Commission could require RUE compliance only for new user equipment and for new versions of user software. Under a third, more limited alternative, the Commission could require VRS providers to make RUE-Profile-compliant user equipment or software available to those users affirmatively requesting such equipment or software, as well as to provide information on their Web sites indicating how to obtain such user equipment and software. Which operating system platforms should be supported under this alternative? Under a fourth alternative, the Commission could make no further changes to its VRS interoperability and portability requirements. The Bureau seeks comments on the relative costs and benefits of these alternatives. In this regard, CGB invites commenters to submit additional specific cost information quantifying the costs of the three alternatives outlined above. The Bureau also seeks comment on the providers' claim that ''forcing provider endpoints to adhere to the RUE Profile would require that providers *remove* any innovative or useful features of their endpoints that are not specified in the RUE Profile and subject their networks to lower security than they employ today.'' What specific aspects of the RUE Profile would require removal of innovative or useful features, and what kinds of innovative or useful features would need to be removed? What specific aspects of the RUE Profile would subject networks to lower security?

Initial Regulatory Flexibility Analysis

5. As required by the Regulatory Flexibility Act, as amended (RFA), the Bureau has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed document DA 17–76. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments specified in the **DATES** section. The Commission will send a copy of document DA 17–76, to the Chief Counsel for Advocacy of the Small Business Administration.

Need for, and Objectives of, the Proposed Rules

6. In document DA 17–76, the Bureau seeks comment on whether the scope of application of the RUE Profile should be expanded beyond the interface between provider networks and user equipment employing ACE software, to apply more generally to the interface between provider networks and provider-supplied user equipment and software. Comment is sought on a variety of alternatives, including the alternative of leaving the rule as is.

Legal Basis

7. The proposed action is authorized under sections 1, 2, 4(i), 225, 251, 255, 303, 316, and 716 of the Communications Act of 1934, as amended, section 6 of the Wireless Communications and Public Safety Act of 1999, and section 106 of the CVAA; 47 U.S.C. 151, 152, 154(i), 225, 255, 303, 316, 615a–1, 615c, 617.

Listing of Small Entities to Which the Proposed Rules Will Apply

8. The proposals in document DA 17–76 will affect obligations of VRS providers, who are classified by the Census Bureau as ''all other telecommunications.''

- All Other Telecommunications.
- VRS Providers, which are generally classified within the broad category of ''All Other Telecommunications.''

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

9. Document DA 17–76 does not include new or modified reporting, recordkeeping, and other compliance requirements, except for compliance with a potentially broader application of the RUE Profile technical standard, to apply more generally to the interface between a VRS provider and provider-supplied user equipment and software.

Steps Taken To Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

10. Regarding the possible broadening of the application of the RUE Profile, document DA 17–76 seeks comment on a variety of alternative approaches, including alternatives with minimal or no impact on small entities.

Federal Rules That May Duplicate, Overlap, or Conflict With the Commission's Proposals

11. None.

Ordering Clauses

Pursuant to sections 1, 2, 4(i), 4(j), 225 and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 152, 154(i), 154(j), 225, 303(r), and the authority delegated by the Commission in *Structure and Practices of the Video Relay Service Program et al.,* Report and Order, published at 78 FR 40582, July 5, 2013, document DA 17–76 *is adopted.*

The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of document DA 17–76, including the

Initial Regulatory Flexibility Analysis to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission.

Karen Peltz Strauss,

Deputy Chief, Consumer and Governmental Affairs Bureau.

[FR Doc. 2017–08487 Filed 4–26–17; 8:45 am]

BILLING CODE 6712–01–P

Notices

Federal Register
Vol. 82, No. 80
Thursday, April 27, 2017

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

Forest Service

Nez Perce-Clearwater National Forests, Palouse Ranger District; Idaho; Moose Creek Project

AGENCY: Forest Service, USDA.

ACTION: Notice of intent to prepare an environmental impact statement and initiate scoping process; request for comments.

SUMMARY: The Palouse Ranger District of the Nez Perce-Clearwater National Forests (NCF) is gathering information to prepare an environmental impact statement (EIS) to identify and assess potential impacts on the environment as a result of the Moose Creek Project in Latah County, Idaho. The proposed action would use timber harvest and fuels treatment in the West Fork Potlatch River subwatershed in an overarching effort to improve forest health, reduce the risk of potential catastrophic wildfires, and provide for long-term social, ecological, and economic sustainability.

DATES: The scoping comment period will be 30 days. To ensure consideration, comments must be received no later than May 30, 2017. The draft environmental impact statement is expected October 2017 and the final environmental impact statement is expected May 2018. Those who wish to establish standing to object under 36 CFR part 218 should submit scoping comments no later than 30 days after publication of this Notice of Intent or during 45-day comment period following distribution of the Draft EIS.

ADDRESSES: Comments may be submitted at the addresses indicated below.

(a) *Via mail or hand delivery:* Stephanie Israel, Moose Creek IDT Leader, Palouse Ranger District, 1700 Highway 6, Potlatch, Idaho 83855.

(b) *Via email: comments-northern-clearwater-palouse@fs.fed.us.*

FOR FURTHER INFORMATION CONTACT: Stephanie Israel, NEPA Planner (North Zone), Nez Perce-Clearwater National Forests, (208) 476–8344 or *sisrael@fs.fed.us.*

Individuals who use telecommunication devices 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.

SUPPLEMENTARY INFORMATION: This process is being conducted pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality Regulations for Implementing the NEPA (40 CFR parts 1500–1508), and Forest Service NEPA guidelines. Additionally, pursuant to Section 106 of the National Historic Preservation Act, the public scoping process will allow members of the general public to provide NCF comments on potential impacts to historic and cultural resources for the proposed action. An objection period for the Draft Record of Decision will be provided, consistent with 36 CFR part 218.

Purpose and Need for Action

The purpose of the Moose Creek project is to treat areas originally analyzed in the late 1990s and early 2000s as part of the West Fork Potlatch EIS. When the previous analysis was performed, silvicultural prescriptions identified certain stands that would require follow-up treatment by 2022 in order to continue efforts of restoring western white pine and other early seral tree species to the landscape. Restoring the landscape to conditions where white pine and early seral tree species are present is desired because these stands are more resilient to disturbance such as fire, harmful insects and disease pathogens. Current stands are primarily composed of grand fir and Douglas-fir which are much less resilient to disturbance. If left untreated, these current conditions would likely lead to a decline in forest health and put future ecological, societal, and economical values at risk.

There is a need to decrease the risk of potential catastrophic wildfire which could threaten private residences within the wildland urban interface near the town of Bovill. The current presence of dead and dying trees combined with the high probability of increased mortality associated with the existing stands is resulting in hazardous fuel loading within the watershed. Treating these affected areas by reducing hazardous ladder fuels would reduce nutrient competition for desired species and decrease the risk of high intensity, high severity, and rapidly moving wildfire.

There is also a need to begin trending toward long-term recovery of existing soil conditions within the watershed. Regional soil standards require actions be designed to keep detrimental soil disturbance (DSD) from exceeding 15%. Current soil conditions already exceed that level in some units, and although the proposed action would cause additional DSD and impaired productivity initially, initiating restoration efforts toward a long-term trend of recovery for overall soil productivity must be identified and implemented. It is estimated that long-term recovery would occur within 30–50 years.

Proposed Action

The proposed action would include regeneration timber harvest of approximately 1,600 acres. Hazardous fuels reduction and site-preparation activities (underburning activity, slash and burning of machine piles) would be applied following harvest activities. An additional 300 acres of hand, mechanical, or prescription fire fuels reduction would be conducted in non-harvest areas. Proposed harvest activities would require construction of approximately 10 miles of new system road to be gated after use to restrict public access and construction of approximately 4.4 miles of temporary roads to be decommissioned after use. Approximately 2 miles of existing roads will be reconstructed and reconditioned. Compaction of existing skid trails and/or landings will be implemented to improve soil conditions, at a minimum in units currently exceeding the 15% DSD threshold.

Relocate and decommission a 0.8 mile section of Road 377 and construct 1.1 miles of new road and a 40-foot precast bridge across Feather Creek. The section of road proposed for relocation is in a meadow that floods every spring which poses a threat to fish habitat and creates annual access and maintenance issues. The proposed re-route and bridge

crossing would provide safe, consistent access to the land, reduce maintenance costs and protect the stream from unnecessary contamination. The Forest Service will work with the Latah County Highway District to acquire the legal access rights needed for the proposed realignment.

Restore Cougar Meadow area to improve range functions by removing or re-contouring portions of an existing railroad berm in Cougar Meadows. Reconnecting the floodplain and Cougar Creek channel where they are currently separated would improve the meadow's ability to hold water into the summer. Construction of two additional stockponds is proposed to reduce animal pressure from stream channels and help draw cattle away from the riparian meadows.

Possible Alternatives

Alternatives will be developed based on comments received during scoping period. At this time the agency is anticipating a minimum of two alternatives: 1. No-action and 2. Proposed Action

Responsible Official

Forest Supervisor, Nez Perce-Clearwater National Forests.

Nature of Decision To Be Made

The Responsible Official will determine whether to adopt the proposed action or another alternative, in whole or in part, and what mitigation measurements and management requirements will be implemented.

Scoping Process

This notice of intent initiates the scoping process, which guides the development of the environmental impact statement.

It is important that reviewers provide their comments at such times and in such manner that they are useful to the agency's preparation of the environmental impact statement. Therefore, comments should be provided prior to the close of the comment period and should clearly articulate the reviewer's concerns and contentions.

Comments received in response to this solicitation, including names and addresses of those who comment, will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered; however, anonymous comments will not provide the Agency with the ability to provide the respondent with subsequent environmental documents.

Dated: April 13, 2017.

Glenn P. Casamassa,

Associate Deputy Chief, National Forest System.

[FR Doc. 2017–08496 Filed 4–26–17; 8:45 am]

BILLING CODE 3411–15–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Virginia Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA) that a planning meeting of the Virginia Advisory Committee to the Commission (VA SAC) will convene by conference call at 12:00 p.m. (EDT) on Thursday, May 4, 2017. The purpose of the meeting is to approve the project proposal and to discuss project planning for the committee's hate crimes project.

DATES: Thursday, May 4, 2017 at 12:00 p.m. (EDT).

ADDRESSES: Public call-in information: Conference call-in number: 1–888–601–3861 and conference call ID: 417838#.

SUPPLEMENTARY INFORMATION: Interested members of the public may listen to the discussion by calling the following toll-free conference call-in number: 1–888–601–3861 and conference call ID: 417838#. Please be advised that before placing them into the conference call, the conference call operator will ask callers to provide their names, their organizational affiliations (if any), and email addresses (so that callers may be notified of future meetings). Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free conference call-in number.

Persons with hearing impairments may also follow the discussion by first calling the Federal Relay Service at 1–800–977–8339 and providing the operator with the toll-free conference call-in number: 1–888–601–3861 and conference call ID: 417838#.

Members of the public are invited to submit written comments; the comments must be received in the regional office approximately 30 days after each scheduled meeting. Written comments may be mailed to the Eastern Regional Office, U.S. Commission on Civil Rights, 1331 Pennsylvania Avenue, Suite 1150, Washington, DC 20425 or emailed to Evelyn Bohor at *ero@usccr.gov.* Persons who desire additional information may contact the Eastern Regional Office at (202) 376–7533.

Records and documents discussed during the meeting will be available for public viewing as they become available at *http://facadatabase.gov/committee/meetings.aspx?cid=279;* click the ''Meeting Details'' and ''Documents'' links. Records generated from this meeting may also be inspected and reproduced at the Eastern Regional Office, as they become available, both before and after the meetings. Persons interested in the work of this advisory committee are advised to go to the Commission's Web site, *www.usccr.gov,* or to contact the Eastern Regional Office at the above phone numbers, email or street address.

Agenda

I. Welcome and Introductions
—Rollcall
—Planning Meeting
—Discuss and Approve Hate Crime Project Proposal
—Discuss Project Planning
II. Other Business
Adjournment

FOR FURTHER INFORMATION CONTACT: Ivy L. Davis, at *ero@usccr.gov* or by phone at 202–376–7533.

Exceptional Circumstance: Pursuant to 41 CFR 102–3.150, the notice for this meeting is given less than 15 calendar days prior to the meeting because of the exceptional circumstance of an administrative holdup on the notice.

Dated: April 24, 2017.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2017–08541 Filed 4–26–17; 8:45 am]

BILLING CODE 6335–01–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–055]

Carton-Closing Staples From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

DATES: Effective April 20, 2017.

FOR FURTHER INFORMATION CONTACT: Irene Gorelik at (202) 482–6905, AD/CVD Operations, Office VIII, Enforcement and Compliance, International Trade Administration,

U.S. Department of Commerce, 1401 Constitution Avenue NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

The Petition

On March 31, 2017, the Department of Commerce (the Department) received an antidumping duty (AD) petition concerning imports of carton-closing staples from the People's Republic of China (PRC), filed in proper form on behalf of North American Steel & Wire, Inc./ISM Enterprises (the petitioner).[1] The petitioner is a producer of carton-closing staples.[2]

On April 4, 2017, the Department requested additional information and clarification of certain areas of the Petition.[3] The petitioner filed responses to the request on April 6, 2017.[4]

In accordance with section 732(b) of the Tariff Act of 1930, as amended (the Act), the petitioner alleges that imports of carton-closing staples from the PRC are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Act, and that imports of carton-closing staples from the PRC are materially injuring, or threaten material injury to, the domestic industry producing carton-closing staples in the United States. Also, consistent with section 732(b)(1) of the Act, the Petition is accompanied by information reasonably available to the petitioner supporting its allegations.

The Department finds that the petitioner filed this Petition on behalf of the domestic industry because the petitioner is an interested party as defined in section 771(9)(C) of the Act. The Department also finds that the petitioner demonstrated sufficient industry support with respect to the initiation of the AD investigation that the petitioner is requesting.[5]

Period of Investigation

Because the Petition was filed on March 31, 2017, pursuant to 19 CFR 351.204(b)(1), the period of investigation (POI) is July 1, 2016 through December 31, 2016.

Scope of the Investigation

The products covered by this investigation are carton-closing staples from the PRC. For a full description of the scope of this investigation, *see* the ''Scope of the Investigation,'' in Appendix I of this notice.

Comments on Scope of the Investigation

During our review of the Petition, we issued questions to, and received responses from, the petitioner pertaining to the proposed scope to ensure that the scope language in the Petition would be an accurate reflection of the products for which the domestic industry is seeking relief.[6] As a result of the responses submitted by the petitioner, we have revised the original scope.[7]

As discussed in the preamble to the Department's regulations,[8] we are setting aside a period for interested parties to raise issues regarding product coverage (scope). The Department will consider all comments received from parties and, if necessary, will consult with parties prior to the issuance of the preliminary determination. If scope comments include factual information (*see* 19 CFR 351.102(b)(21)), all such factual information should be limited to public information. In order to facilitate preparation of its questionnaires, the Department requests all interested parties to submit such comments by 5:00 p.m. Eastern Time (ET) on May 10, 2017, which is 20 calendar days from the signature date of this notice. Any rebuttal comments, which may include factual information (also limited to public information), must be filed by 5:00 p.m. ET on Monday, May 22, 2017.

The Department requests that any factual information the parties consider relevant to the scope of the investigation be submitted during this time period. However, if a party subsequently finds that additional factual information pertaining to the scope of the investigation may be relevant, the party may contact the Department and request permission to submit the additional information.

Filing Requirements

All submissions to the Department must be filed electronically using Enforcement & Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS).[9] An electronically filed document must be received successfully in its entirety by the time and date when it is due. Documents excepted from the electronic submission requirements must be filed manually (*i.e.,* in paper form) with Enforcement & Compliance's APO/Dockets Unit, Room 18022, U.S. Department of Commerce, 1401 Constitution Avenue NW., Washington, DC 20230, and stamped with the date and time of receipt by the applicable deadlines.

Comments on Product Characteristics for AD Questionnaire

The Department requests comments from interested parties regarding the appropriate physical characteristics of carton-closing staples to be reported in response to the Department's AD questionnaire. This information will be used to identify the key physical characteristics of the subject merchandise in order to report the relevant factors and costs of production accurately as well as to develop appropriate product-comparison criteria.

Interested parties may provide any information or comments that they feel are relevant to the development of an accurate list of physical characteristics. Specifically, they may provide comments as to which characteristics are appropriate to use as: (1) General product characteristics and (2) product-comparison criteria. We note that it is not always appropriate to use all product characteristics as product-comparison criteria. We base product-comparison criteria on meaningful commercial differences among products. In other words, although there may be some physical product characteristics utilized by manufacturers to describe carton-closing staples, it may be that only a select few product characteristics take into account commercially meaningful physical characteristics. In addition, interested parties may comment on the order in which the physical characteristics should be used in matching products. Generally, the Department attempts to list the most

[1] *See* Petition for the Imposition of Antidumping Duties, dated March 31, 2017 (the Petition), at Volumes I and II.

[2] *Id.,* at Volume I.

[3] *See* Letters from the Department to the petitioner entitled, ''Petitions for the Imposition of Antidumping Duties on Imports of Carton-Closing Staples from the People's Republic of China: Supplemental Questions,'' dated April 4, 2017 (Supplemental Questionnaire).

[4] *See* Letter from the petitioner to the Department entitled, ''Petitioners' Responses to Department's April 4, 2017 Supplemental Questionnaire Regarding the Antidumping Duty Petition,'' dated April 6, 2017 (Supplemental Response).

[5] *See* the ''Determination of Industry Support for the Petition'' section below.

[6] *See* Supplemental Questionnaire; *see also* Supplemental Response and Letter from the petitioner, re: ''Petitioner's Scope Clarification,'' dated April 10, 2017, and Memorandum to the File, from Irene Gorelik, re: ''Second Revision to the Scope of the Investigation,'' dated April 13, 2017.

[7] *See* Appendix I.

[8] *See Antidumping Duties; Countervailing Duties,* 62 FR 27296, 27323 (May 19, 1997).

[9] *See* 19 CFR 351.303 (describing general filing requirements); *see also Antidumping and Countervailing Duty Proceedings: Electronic Filing Procedures; Administrative Protective Order Procedures,* 76 FR 39263 (July 6, 2011) and *Enforcement and Compliance; Change of Electronic Filing System Name,* 79 FR 69046 (November 20, 2014) for details of the Department's electronic filing requirements, which went into effect on August 5, 2011. Information on help using ACCESS can be found at *https://access.trade.gov/help.aspx* and a handbook can be found at *https://access.trade.gov/help/Handbook%20on%20Electronic%20Filling%20Procedures.pdf.*

important physical characteristics first and the least important characteristics last.

In order to consider the suggestions of interested parties in developing and issuing the AD questionnaire, all comments must be filed by 5:00 p.m. ET on May 10, 2017, which is 20 calendar days from the signature date of this notice. Any rebuttal comments must be filed by 5:00 p.m. ET May 22, 2017. All comments and submissions to the Department must be filed electronically using ACCESS, as explained above, on the record of this less-than-fair-value investigation.

Determination of Industry Support for the Petition

Section 732(b)(1) of the Act requires that a petition be filed on behalf of the domestic industry. Section 732(c)(4)(A) of the Act provides that a petition meets this requirement if the domestic producers or workers who support the petition account for: (i) At least 25 percent of the total production of the domestic like product; and (ii) more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for, or opposition to, the petition. Moreover, section 732(c)(4)(D) of the Act provides that, if the petition does not establish support of domestic producers or workers accounting for more than 50 percent of the total production of the domestic like product, the Department shall: (i) Poll the industry or rely on other information in order to determine if there is support for the petition, as required by subparagraph (A); or (ii) determine industry support using a statistically valid sampling method to poll the ''industry.''

Section 771(4)(A) of the Act defines the ''industry'' as the producers as a whole of a domestic like product. Thus, to determine whether a petition has the requisite industry support, the statute directs the Department to look to producers and workers who produce the domestic like product. The International Trade Commission (ITC), which is responsible for determining whether ''the domestic industry'' has been injured, must also determine what constitutes a domestic like product in order to define the industry. While both the Department and the ITC must apply the same statutory definition regarding the domestic like product,[10] they do so for different purposes and pursuant to a separate and distinct authority. In addition, the Department's determination is subject to limitations of time and information. Although this may result in different definitions of the like product, such differences do not render the decision of either agency contrary to law.[11]

Section 771(10) of the Act defines the domestic like product as ''a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation under this title.'' Thus, the reference point from which the domestic like product analysis begins is ''the article subject to an investigation'' (*i.e.,* the class or kind of merchandise to be investigated, which normally will be the scope as defined in the Petition).

With regard to the domestic like product, the petitioner does not offer a definition of the domestic like product distinct from the scope of the investigation. Based on our analysis of the information submitted on the record, we have determined that carton-closing staples, as defined in the scope, constitute a single domestic like product, and we have analyzed industry support in terms of that domestic like product.[12]

In determining whether the petitioner has standing under section 732(c)(4)(A) of the Act, we considered the industry support data contained in the Petition with reference to the domestic like product as defined in the ''Scope of the Investigation,'' in Appendix I of this notice. To establish industry support, the petitioner provided its 2016 production of the domestic like product.[13] The petitioner states that it is the only known producer of carton-closing staples in the United States; therefore, the Petition is supported by 100 percent of the U.S. industry.[14]

Our review of the data provided in the Petition, the Supplemental Response, and other information readily available to the Department indicates that the petitioner has established U.S. industry support.[15] First, the Petition established support from U.S. domestic producers (or workers) accounting for more than 50 percent of the total production of the domestic like product and, as such, the Department is not required to take further action in order to evaluate industry support (*e.g.,* polling).[16] Second, the domestic producers (or workers) have met the statutory criteria for industry support under section 732(c)(4)(A)(i) of the Act because the domestic producers (or workers) who support the Petition account for at least 25 percent of the total production of the domestic like product.[17] Finally, the domestic producers (or workers) have met the statutory criteria for industry support under section 732(c)(4)(A)(ii) of the Act because the domestic producers (or workers) who support the Petition account for more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for, or opposition to, the Petition.[18] Accordingly, the Department determines that the Petition was filed on behalf of the domestic industry within the meaning of section 732(b)(1) of the Act.

The Department finds that the petitioner filed the Petition on behalf of the domestic industry because it is an interested party as defined in section 771(9)(C) of the Act and it has demonstrated sufficient industry support with respect to the AD investigation that it is requesting the Department initiate.[19]

Allegations and Evidence of Material Injury and Causation

The petitioner alleges that the U.S. industry producing the domestic like product is being materially injured, or is threatened with material injury, by reason of the imports of the subject merchandise sold at less than normal value (NV). In addition, the petitioner alleges that subject imports exceed the negligibility threshold provided for under section 771(24)(A) of the Act.[20] The petitioner contends that the industry's injured condition is illustrated by the impact on the domestic industry's market share; underselling and price depression or suppression; lost sales and revenues; decline in wages, hours, and employment; decline in shipments; low capacity utilization rates; and decline in

[10] *See* section 771(10) of the Act.

[11] *See USEC, Inc.* v. *United States,* 132 F. Supp. 2d 1, 8 (CIT 2001) (citing *Algoma Steel Corp., Ltd.* v. *United States,* 688 F. Supp. 639, 644 (CIT 1988), *aff'd* 865 F.2d 240 (Fed. Cir. 1989)).

[12] For a discussion of the domestic like product analysis in this case, *see* ''AD Investigation Initiation Checklist: Carton-Closing Staples from the People's Republic of China (PRC AD Initiation Checklist), at Attachment II, Determination of Industry Support for the Antidumping Duty Petition Covering Carton-Closing Staples from the People's Republic of China. This checklist is dated concurrently with this notice and on file electronically via ACCESS. Access to documents filed via ACCESS is also available in the Central Records Unit, Room B8024 of the main Department of Commerce building.

[13] *See* Volume I of the Petition, at I–7 and Exhibit I–1.

[14] *Id.,* at I–2, I–7 and Exhibits I–1 and I–2.

[15] *See* PRC AD Initiation Checklist, at Attachment II.

[16] *See* section 732(c)(4)(D) of the Act; *see also* PRC AD Initiation Checklist, at Attachment II.

[17] *See* PRC AD Initiation Checklist, at Attachment II.

[18] *Id.*

[19] *Id.*

[20] *See* Volume I of the Petition, at I–16, I–17 and Exhibit I–14.

profitability.[21] We have assessed the allegations and supporting evidence regarding material injury, threat of material injury, and causation, and we have determined that these allegations are properly supported by adequate evidence, and meet the statutory requirements for initiation.[22]

Allegation of Sales at Less Than Fair Value

The following is a description of the allegation of sales at less than fair value upon which the Department based its decision to initiate an investigation of imports of carton-closing staples from the PRC. The sources of data for the deductions and adjustments relating to U.S. price and NV are discussed in greater detail in the initiation checklist.

Export Price

The petitioner based export prices (EP) on price quotations for the sale of carton-closing staples to U.S. customers, obtained from an on-line marketplace, as well as on a price quote from a PRC producer of carton-closing staples.[23] The petitioner made deductions from U.S. price, as appropriate and consistent with the sale and delivery terms, for foreign inland freight, foreign brokerage and handling, and unrebated value-added tax, where applicable.[24]

Normal Value

The petitioner stated that the Department has identified the PRC as a non-market economy (NME) country as recently as the week before the petitioner filed the petition, and the Department has not since that time published any determination concluding that the PRC is a market economy.[25] In accordance with section 771(18)(C)(i) of the Act, the presumption of NME status remains in effect until revoked by the Department. The presumption of NME status for the PRC has not been revoked by the Department and, therefore, remains in effect for purposes of the initiation of this investigation. Accordingly, the NV of the product is appropriately based on factors of production (FOPs) valued in a surrogate market economy country, in accordance with section 773(c) of the Act.

The petitioner claims that Thailand is an appropriate surrogate country because it is a market economy country that is at a level of economic development comparable to that of the PRC, it is a significant producer of comparable merchandise, and public information from Thailand is available to value all material input factors.[26] Based on the information provided by the petitioner, we determine that it is appropriate to use Thailand as a surrogate country for initiation purposes. Interested parties will have the opportunity to submit comments regarding surrogate country selection and, pursuant to 19 CFR 351.301(c)(3)(i), will be provided an opportunity to submit publicly available information to value FOPs within 30 days before the scheduled date of the preliminary determination.

Factors of Production

The petitioner based the FOPs for materials and energy on its own consumption rates in the production of carton-closing staples in the United States.[27] The petitioner asserts that the production process for carton-closing staples is similar regardless of whether the product is produced in the United States or in the PRC.[28] The petitioner valued the estimated factors of production using surrogate values from Thailand, as discussed below.[29]

Valuation of Raw Materials

The petitioner valued the FOPs for certain raw materials (*i.e.,* steel wire, steel wire rod, etc.) and packing materials using public import data for Thailand obtained from the Global Trade Atlas (GTA) applicable for the POI.[30] The petitioner excluded all import values from countries previously determined by the Department to maintain broadly available, non-industry-specific export subsidies and from countries previously determined by the Department to be NME countries.[31] In addition, in accordance with the Department's practice, the petitioner excluded imports that were labeled as originating from an unidentified country.[32] The Department determines that the surrogate values used by the petitioner are reasonably available and, thus, are acceptable for purposes of initiation.

Valuation of Labor

The petitioner has not included FOPs for direct or indirect labor in its NV calculations, as noted in Volume I of the Petition,[33] where the petitioner stated that its labor figures for the POI may not be representative of carton-closing staple production under normal conditions.[34] The petitioner notes that the exclusion of labor FOPs from the NV calculation is a conservative approach, as PRC producers incur labor costs which would, normally, raise the NV.[35]

Valuation of Energy

The petitioner valued electricity, natural gas, and water to calculate the NV of integrated production of carton-closing staples (drawing wire rod into wire).[36] The petitioner used GTA data during the POI to value natural gas using the average unit value of imports of natural gas into Thailand.[37] The petitioner applied that rate to its usage rates.[38] The petitioner valued electricity and water using publicly available data from the Thai Investment Board and Thai Provincial Electrical Authority, respectively, for May 2015, which the petitioner inflated for the POI.[39]

Valuation of Factory Overhead, Selling, General and Administrative Expenses, and Profit

The petitioner calculated ratios for factory overhead, selling, general and administrative expenses based on the 2015 consolidated financial statements of L.S. Industry Co., Ltd., a Thai producer of steel nails, which the petitioner asserts is merchandise comparable to carton-closing staples because steel nails are also produced from steel wire rod or steel wire.[40] The petitioner calculated a profit rate for L.S. Industry Co., Ltd. by adding its other gains and losses to its operating profit, and dividing the result by the sum of cost of sales and SG&A expenses.

[21] *Id.,* at I–11 through I–28 and Exhibits I–10, I–11 and I–13 through I–20; *see also* Supplemental Response, at 11–14 and Exhibit I–SQ–8.

[22] *See* PRC AD Initiation Checklist, at Attachment III, Analysis of Allegations and Evidence of Material Injury and Causation for the Antidumping Duty Petition Covering Carton-Closing Staples from the People's Republic of China.

[23] *See* Volume II of the Petition, at 5–6 and Exhibits II–4(A), II–4(B), II–4(C); *see also* Supplemental Response at, Exhibit II–SQ–2, 4.

[24] *See* Volume II of the Petition, at 6–7, 9 and Exhibits II–4(A), II–4(B), II–4(C) and II–6(A–E); *see also* Supplemental Response, at 16 and Exhibits II–SQ–2, 4.

[25] *See* Volume II of the Petition, at 1.

[26] *See* Volume II of the Petition, at 2.

[27] *See* Volume II of the Petition, at 9–10 and Exhibits II–7(A), II–9(C), II–7(H).

[28] *See* Volume II of the Petition, at 9–10.

[29] *Id.,* at 9–13 and Exhibits II–7(A), II–9(C), II–7(H); *see also* Supplemental Response, at 17–19 and Exhibits II–SQ–3, II–SQ–7 and 8.

[30] *See* Volume II of the Petition, at Exhibit II–7 and Supplemental Response, at Exhibit II–SQ–7 and 8.

[31] *See* Volume II of the Petition, at 10 and Exhibit II–7(C).

[32] *Id.*

[33] *Id.,* at 11; *see also* Volume I of the Petition, at 22–23.

[34] *See* Volume I of the Petition, at 22–23.

[35] *See* Volume II of the Petition, at 11.

[36] *See* Volume II of the Petition, at 11–12.

[37] *See* Volume II of the Petition, at 12 and Exhibits II–7(C,D); *see also* Supplemental Response at Exhibit II–SQ–7.

[38] *See* Volume II of the Petition, at 11–12 and Exhibit II–7(C,D,E) and II–8(B).

[39] See Volume II of the Petition, at 12 and Exhibit II–7(E).

[40] *See* Volume II of the Petition, at 4–5, 12–13 and Exhibit II–7(F).

The petitioner calculated profit values for each product covered by the sales offers/quotes by multiplying the profit rate by the calculated cost of production (COP) of each of the 15 product types. The resulting profit values were added to the COP values for the 15 product types to arrive at total COP plus profit for each product.[41]

Fair Value Comparisons

Based on the data provided by the petitioner, there is reason to believe that imports of carton-closing staples from the PRC are being, or are likely to be, sold in the United States at less than fair value. Based on comparisons of EP to NV, in accordance with section 773(c) of the Act, the estimated dumping margins for carton-closing staples from the PRC range from 13.76 percent to 263.43 percent.[42]

Initiation of Less-Than-Fair-Value Investigation

Based upon the examination of the Petition, we find that the Petition meets the requirements of section 732 of the Act. Therefore, we are initiating an AD investigation to determine whether imports of carton-closing staples from the PRC are being, or are likely to be, sold in the United States at less than fair value. In accordance with section 733(b)(1)(A) of the Act and 19 CFR 351.205(b)(1), unless postponed, we intend to make our preliminary determination no later than 140 days after the date of this initiation.

Under the Trade Preferences Extension Act of 2015, numerous amendments to the AD and CVD laws were made.[43] The 2015 law does not specify dates of application for those amendments. On August 6, 2015, the Department published an interpretative rule, in which it announced the applicability dates for each amendment to the Act, except for amendments contained in section 771(7) of the Act, which relate to determinations of material injury by the ITC.[44] The amendments to sections 771(15), 773, 776, and 782 of the Act are applicable to all determinations made on or after August 6, 2015, and, therefore, apply to this AD investigation.[45]

Respondent Selection

In accordance with our standard practice for respondent selection in AD cases involving NME countries, we intend to issue quantity and value (Q&V) questionnaires to producers/exporters of merchandise subject to the investigation and, if necessary, base respondent selection on the responses received. For this investigation, the Department will request Q&V information from known exporters and producers identified, with complete contact information, in the Petition. In addition, the Department will post the Q&V questionnaire along with filing instructions on the Enforcement and Compliance Web site at *http://www.trade.gov/enforcement/news.asp.*

Producers/exporters of carton-closing staples from the PRC that do not receive Q&V questionnaires by mail may still submit a response to the Q&V questionnaire and can obtain a copy from the Enforcement & Compliance Web site. The Q&V response must be submitted by the relevant PRC exporters/producers no later than 5:00 p.m. ET on May 5, 2017. All Q&V responses must be filed electronically via ACCESS.

Separate Rates

In order to obtain separate-rate status in an NME investigation, exporters and producers must submit a separate-rate application.[46] The specific requirements for submitting a separate-rate application in the PRC investigation are outlined in detail in the application itself, which is available on the Department's Web site at *http://enforcement.trade.gov/nme/nme-sep-rate.html.* The separate-rate application will be due 30 days after publication of this initiation notice.[47] Exporters and producers who submit a separate-rate application and have been selected as mandatory respondents will be eligible for consideration for separate-rate status only if they respond to all parts of the Department's AD questionnaire as mandatory respondents. The Department requires that companies from the PRC submit a response to both the Q&V questionnaire and the separate-rate application by the respective deadlines in order to receive consideration for separate-rate status. Companies not filing a timely Q&V response will not receive separate rate consideration.

Use of Combination Rates

The Department will calculate combination rates for certain respondents that are eligible for a separate rate in an NME investigation. The Separate Rates and Combination Rates Bulletin states:

> {w}hile continuing the practice of assigning separate rates only to exporters, all separate rates that the Department will now assign in its NME Investigation will be specific to those producers that supplied the exporter during the period of investigation. Note, however, that one rate is calculated for the exporter and all of the producers which supplied subject merchandise to it during the period of investigation. This practice applies both to mandatory respondents receiving an individually calculated separate rate as well as the pool of non-investigated firms receiving the weighted-average of the individually calculated rates. This practice is referred to as the application of ''combination rates'' because such rates apply to specific combinations of exporters and one or more producers. The cash-deposit rate assigned to an exporter will apply only to merchandise both exported by the firm in question *and* produced by a firm that supplied the exporter during the period of investigation.[48]

Distribution of Copies of the Petition

In accordance with section 732(b)(3)(A) of the Act and 19 CFR 351.202(f), a copy of the public version of the Petition has been provided to the government of the PRC via ACCESS. Because of the particularly large number of producers/exporters identified in the Petition, the Department considers the service of the public version of the Petition to the foreign producers/exporters satisfied by delivery of the public version to the government of the PRC, consistent with 19 CFR 351.203(c)(2).

ITC Notification

We will notify the ITC of our initiation, as required by section 732(d) of the Act.

Preliminary Determination by the ITC

The ITC will preliminarily determine, within 45 days after the date on which the Petition was filed, whether there is a reasonable indication that imports of carton-closing staples from the PRC are materially injuring or threatening material injury to a U.S. industry.[49] A negative ITC determination will result in the investigation being terminated; [50]

[41] *See* Volume II of the Petition, at Exhibit II–7(F).

[42] *See* Supplemental Response, at 19 and Exhibit II–SQ–9.

[43] *See* Trade Preferences Extension Act of 2015, Pub. L. 114–27, 129 Stat. 362 (2015).

[44] *See Dates of Application of Amendments to the Antidumping and Countervailing Duty Laws Made by the Trade Preferences Extension Act of 2015,* 80 FR 46793 (August 6, 2015) (*Applicability Notice*).

[45] *Id.,* at 46794–95. The 2015 amendments may be found at *https://www.congress.gov/bill/114th-congress/house-bill/1295/text/pl.*

[46] *See* Policy Bulletin 05.1: Separate-Rates Practice and Application of Combination Rates in Antidumping Investigation involving Non-Market Economy Countries (April 5, 2005), available at *http://enforcement.trade.gov/policy/bull05–1.pdf* (Policy Bulletin 05.1).

[47] Although in past investigations this deadline was 60 days, consistent with 19 CFR 351.301(a), which states that ''the Secretary may request any person to submit factual information at any time during a proceeding,'' this deadline is now 30 days.

[48] *See* Policy Bulletin 05.1 at 6 (emphasis added).

[49] *See* section 733(a) of the Act.

[50] *Id.*

otherwise, this investigation will proceed according to statutory and regulatory time limits.

Submission of Factual Information

Factual information is defined in 19 CFR 351.102(b)(21) as: (i) Evidence submitted in response to questionnaires; (ii) evidence submitted in support of allegations; (iii) publicly available information to value factors under 19 CFR 351.408(c) or to measure the adequacy of remuneration under 19 CFR 351.511(a)(2); (iv) evidence placed on the record by the Department; and (v) evidence other than factual information described in (i)–(iv). Any party, when submitting factual information, must specify under which subsection of 19 CFR 351.102(b)(21) the information is being submitted [51] and, if the information is submitted to rebut, clarify, or correct factual information already on the record, to provide an explanation identifying the information already on the record that the factual information seeks to rebut, clarify, or correct.[52] Time limits for the submission of factual information are addressed in 19 CFR 351.301, which provides specific time limits based on the type of factual information being submitted. Interested parties should review the regulations prior to submitting factual information in this investigation.

Extensions of Time Limits

Parties may request an extension of time limits before the expiration of a time limit established under 19 CFR 351, or as otherwise specified by the Secretary. In general, an extension request will be considered untimely if it is filed after the expiration of the time limit established under 19 CFR 351. For submissions that are due from multiple parties simultaneously, an extension request will be considered untimely if it is filed after 10:00 a.m. ET on the due date. Under certain circumstances, we may elect to specify a different time limit by which extension requests will be considered untimely for submissions which are due from multiple parties simultaneously. In such a case, we will inform parties in the letter or memorandum setting forth the deadline (including a specified time) by which extension requests must be filed to be considered timely. An extension request must be made in a separate, stand-alone submission; under limited circumstances we will grant untimely-filed requests for the extension of time limits. Review *Extension of Time Limits; Final Rule,* 78 FR 57790 (September 20, 2013), available at *http://www.gpo.gov/fdsys/pkg/FR-2013-09-20/html/2013-22853.htm,* prior to submitting factual information in this investigation.

Certification Requirements

Any party submitting factual information in an AD or CVD proceeding must certify to the accuracy and completeness of that information.[53] Parties are hereby reminded that revised certification requirements are in effect for company/government officials, as well as their representatives. Investigations initiated on the basis of petition filed on or after August 16, 2013, and other segments of any AD or CVD proceedings initiated on or after August 16, 2013, should use the formats for the revised certifications provided at the end of the *Final Rule*.[54] The Department intends to reject factual submissions if the submitting party does not comply with applicable revised certification requirements.

Notification to Interested Parties

Interested parties must submit applications for disclosure under administrative protective order (APO) in accordance with 19 CFR 351.305. On January 22, 2008, the Department published *Antidumping and Countervailing Duty Proceedings: Documents Submission Procedures; APO Procedures,* 73 FR 3634 (January 22, 2008).

Parties wishing to participate in this investigation should ensure that they meet the requirements of these procedures (*e.g.,* the filing of letters of appearance as discussed in 19 CFR 351.103(d)).

This notice is issued and published pursuant to section 777(i) of the Act and 19 CFR 351.203(c).

Dated: April 20, 2017.

Ronald K. Lorentzen,

Acting Assistant Secretary for Enforcement and Compliance.

Appendix I—Scope of the Investigation

The scope of this investigation is carton-closing staples. Carton-closing staples may be manufactured from carbon, alloy, or stainless steel wire, and are included in the scope of the investigation regardless of whether they are uncoated or coated, regardless of the type of coating.

Carton-closing staples are generally made to American Society for Testing and Materials (ASTM) specification ASTM D1974/D1974M–16, but can also be made to other specifications. Regardless of specification, however, all carton-closing staples meeting the scope description are included in the scope. Carton-closing staples include stick staple products, often referred to as staple strips, and roll staple products, often referred to as coils. Stick staples are lightly cemented or lacquered together to facilitate handling and loading into stapling machines. Roll staples are taped together along their crowns. Carton-closing staples are covered regardless of whether they are imported in stick form or roll form.

Carton-closing staples vary by the size of the wire, the width of the crown, and the length of the leg. The nominal leg length ranges from 0.4095 inch to 1.375 inches and the nominal crown width ranges from 1.125 inches to 1.375 inches. The size of the wire used in the production of carton-closing staples varies from 0.029 to 0.064 inch (nominal thickness) by 0.064 to 0.100 inch (nominal width).

Carton-closing staples subject to this investigation are currently classifiable under subheadings 8305.20.00.00 and 7317.00.65.60 of the Harmonized Tariff Schedule of the United States (''HTSUS''). While the HTSUS subheadings and ASTM specification are provided for convenience and for customs purposes, the written description of the subject merchandise is dispositive.

[FR Doc. 2017–08526 Filed 4–26–17; 8:45 am]

BILLING CODE 3510–DS–P

[51] *See* 19 CFR 351.301(b).

[52] *See* 19 CFR 351.301(b)(2).

[53] *See* section 782(b) of the Act.

[54] *See Certification of Factual Information to Import Administration during Antidumping and Countervailing Duty Proceedings,* 78 FR 42678 (July 17, 2013) (*Final Rule*); *see also* frequently asked questions regarding the *Final Rule,* available at *http://enforcement.trade.gov/tlei/notices/factual_info_final_rule_FAQ_07172013.pdf.*

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–001]

Potassium Permanganate From the People's Republic of China; 2016; Partial Rescission of the Antidumping Duty Administrative Review

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: On March 15, 2017, the Department of Commerce (the Department) published a notice of initiation of an administrative review of the antidumping duty order on potassium permanganate from the People's Republic of China (PRC). Based on Chongqing Changyuan Group Limited's (Changyuan) timely withdrawal of its request for review, we are now rescinding this administrative review with respect to Changyuan.

DATES: Effective April 27, 2017.

FOR FURTHER INFORMATION CONTACT: Kabir Archuletta, AD/CVD Operations, Office V, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW., Washington, DC 20230; telephone (202) 482–2593.

Background

On January 10, 2017, the Department published a notice of ''Opportunity to Request Administrative Review'' of the antidumping duty order on potassium permanganate from the PRC.[1] On January 31, 2017, the Department received timely requests to conduct an administrative review of the antidumping duty order on potassium permanganate from the PRC from Pacific Accelerator Limited (PAL) and Changyuan.[2] Based upon those requests, on March 15, 2017, in accordance with section 751(a) or the Tariff Act of 1930, as amended (the Act), the Department published a notice of initiation of an administrative review of the *Order*[3] covering the period January 1, 2016, to December 31, 2016.[4] The Department initiated the administrative review with respect to PAL and Changyuan.[5] On April 12, 2017, Changyuan withdrew its request for review.[6]

Partial Rescission

Pursuant to 19 CFR 351.213(d)(1), the Secretary will rescind an administrative review, in whole or in part, if a party who requested the review withdraws the request within 90 days of the date of publication of notice of initiation of the requested review. Changyuan timely withdrew its review request and no other party requested a review of Changyuan. Accordingly, we are rescinding this review, in part, with respect to Changyuan, in accordance with 19 CFR 351.213(d)(1). This review will continue with respect to PAL.

Assessment

The Department will instruct U.S. Customs and Border Protection (CBP) to assess antidumping duties on all appropriate entries. For the company for which this review is rescinded, antidumping duties shall be assessed at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, in accordance with 19 CFR 351.212(c)(1)(i). The Department intends to issue appropriate assessment instructions directly to CBP 15 days after publication of this notice in the **Federal Register**.

Notification to Importers

This notice serves as the only reminder to importers for whom this review is being rescinded, as of the publication date of this notice, of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in the presumption that reimbursement of the antidumping duties occurred and the subsequent assessment of double antidumping duties.

Notification Regarding Administrative Protective Orders

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305, which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of the return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

Notification to Interested Parties

This notice is issued and published in accordance with sections 751 and 777(i)(l) of the and 19 CFR 351.213(d)(4).

Dated: April 21, 2017.

Gary Taverman,

Associate Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2017–08527 Filed 4–26–17; 8:45 am]

BILLING CODE 3510–DS–P

[1] *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review,* 82 FR 2951 (January 10, 2017).

[2] *See* Letter to the Secretary of Commerce from PAL and Changyuan ''RE: Request for Administrative Review of the Antidumping Duty Order on Potassium Permanganate from the People's Republic of China'' (January 31, 2017).

[3] *See Antidumping Duty Order; Potassium Permanganate from the People's Republic of China,* 49 FR 3897 (January 31, 1984) (*Order*).

[4] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 82 FR 13795 (March 15, 2017).

[5] *Id.*

[6] *See* Letter to the Secretary of Commerce from PAL and Changyuan ''Re: Amendment of Administrative Review Request: Antidumping Duty Order on Potassium Permanganate from the People's Republic of China (A–570–001)'' (April 12, 2017).

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 17–18]

36(b)(1) Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Notice.

SUMMARY: The Department of Defense is publishing the unclassified text of a section 36(b)(1) arms sales notification. This is published to fulfill the requirements of section 155 of Public Law 104–164 dated July 21, 1996.

FOR FURTHER INFORMATION CONTACT: Kathy Valadez, (703) 697–9217 or Pamela Young, (703) 697–9107; DSCA/DSA–RAN.

The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 17–18 with attached Policy Justification.

Dated: April 24, 2017.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

BILLING CODE 5001–06–P

DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, STE 203
ARLINGTON, VA 22202-5408

APR 19 2017

The Honorable Paul D. Ryan
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 17-18, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to Canada for defense articles and services estimated to cost $195 million. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

J. W. Rixey
Vice Admiral, USN
Director

Enclosures:
1. Transmittal
2. Policy Justification

BILLING CODE 5001–06–C

Transmittal No. 17–18

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(l) of the Arms Export Control Act, as amended

(i) *Prospective Purchaser:* Government of Canada

(ii) *Total Estimated Value:*

Major Defense Equipment *	$ 0 million
Other	$195 million
TOTAL	$195 million

(iii) *Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:*

Major Defense Equipment (MDE): None.

Non-MDE:

Non-MDE items and services under consideration for sale are follow-on support for five (5) CC177 aircraft (Canada's designator for the C–17), including contractor logistics support (CLS) provided through the Globemaster III Integrated Sustainment Program (GISP), in-country field services support, alternate mission equipment,

major modification and retrofit, software support, aircraft maintenance and technical support, support equipment, personnel training and training equipment, additional spare and repair parts, publications and technical documentation, and other U.S. Government and contractor engineering, logistics and program support.

(iv) *Military Department:* Air Force (QCR)

(v) *Prior Related Cases, if any:* CN–D–QZZ—$1.3B—15 Nov 06

(vi) *Sales Commission, Fee, etc., Paid, Offered. or Agreed to be Paid:* None

(vii) *Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold:* None

(viii) *Date Report Delivered to Congress:* April 19, 2017

* as defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Government of Canada—Sustainment Support for C–17 Aircraft

The Government of Canada has requested a possible sale of follow-on support for five (5) CC177 aircraft (Canada's designator for the C–17), including contractor logistics support (CLS) provided through the Globemaster III Integrated Sustainment Program (GISP), in-country field services support, aircraft maintenance and technical support, support equipment, alternate mission equipment, software support, spares, personnel training and training equipment, U.S. Government and contractor engineering and logistics support services, publications and technical documentation, and major modification and retrofit kits support. The total estimated program cost is $195 million.

This proposed sale will contribute to the foreign policy and national security objectives of the United States by sustaining the military capabilities of Canada, a NATO ally that has been, and continues to be, an important force for ensuring political stability and economic progress in the world, including through its involvement in military, peacekeeping, and humanitarian operations. The sustainment of Canada's C–17s will ensure the country's continued capability to rapidly deploy its forces, as well as the continued interoperability between the U.S. and Canadian Air Forces' C–17s.

The proposed sale of defense articles and services is required to maintain the operational readiness of the Royal Canadian Air Force C–17 aircraft. Canada's current contract supporting its five (5) C–17s will expire on 20 September 2017. The Royal Canadian Air Force will have no difficulty absorbing this support.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

Sources of supply will award contracts when necessary to provide the defense articles ordered if items ordered are not available from U.S. stock or are considered lead-time away.

The prime contractor will involve the following contractors:

Boeing Company, Long Beach, California

Boeing Company Training Systems, St. Louis, Missouri

Lockheed Martin Corporation/MFC, Lexington, Kentucky

There are no known offsets. Any offset agreements will be defined in negotiations between the purchaser and the contractor.

Implementation of this proposed sale will not require the assignment of any additional U.S. Government or contractor representatives to Canada. There is an on-going foreign military sales case providing C–17 sustainment services. There are currently 13 contractors from Boeing in-country providing contractor technical services support on a continuing basis.

There will be no adverse impact to U.S. defense readiness as a result of this proposed sale.

[FR Doc. 2017–08495 Filed 4–26–17; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 17–10]

36(b)(1) Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Notice.

SUMMARY: The Department of Defense is publishing the unclassified text of a section 36(b)(1) arms sales notification. This is published to fulfill the requirements of section 155 of Public Law 104–164 dated July 21, 1996.

FOR FURTHER INFORMATION CONTACT: Kathy Valadez, (703) 697–9217 or Pamela Young, (703) 697–9107; DSCA/DSA–RAN.

The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 17–10 with attached Policy Justification.

Dated: April 21, 2017.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

BILLING CODE 5001–06–P

DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, STE 203
ARLINGTON, VA 22202-5408

The Honorable Paul D. Ryan
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

APR 18 2017

Dear Mr. Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 17-10, concerning the Army's proposed Letter(s) of Offer and Acceptance to the Government of Iraq for defense articles and services estimated to cost $295.6 million. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

J. W. Rixey
Vice Admiral, USN
Director

Enclosures:
1. Transmittal
2. Policy Justification
3. Sensitivity of Technology
4. Regional Balance (Classified document provided under separate cover)

BILLING CODE 5001–06–C

Transmittal No. 17–10

Notice of Proposed Issuance of Letter of Offer Pursuant to Section 36(b)(1) of the Arms Export Control Act, as Amended

(i) *Prospective Purchaser:* Government of Iraq

(ii) *Total Estimated Value:*

Major Defense Equipment *.	$ 40.6 million
Other	$255.0 million
Total	$295.6 million

(iii) *Description and Quantity or Quantities of Articles or Services Under Consideration for Purchase:*

Major Defense Equipment (MDE):

Four thousand four hundred (4,400) M16A4 Rifles

Forty-six (46) M2 50 Caliber Machine Guns

One hundred eighty-six (186) M240B Machine Guns

Thirty-six (36) M1151 High Mobility Multipurpose Wheeled Vehicles (HMMWVs)
Seventy-seven (77) M1151 up-armored HMMWVs

Non-MDE: All necessary equipment and accessories to outfit two Peshmerga Regional Brigades and two support artillery battalions, to include twelve (12) 3 kilowatt tactical quiet generator sets, body armor, helmets, and other Organization Clothing and Individual Equipment (OCIE); small arms and associated accessories including tripods, cleaning kits, magazines, and mounts; mortar systems and associated equipment; Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) detection and protective equipment; dismounted and mounted radio systems; commercial navigation equipment including compasses, binoculars, and Geospatial Position System (GPS) limited to the Standard Positioning System (SPS); M1142 HMMWVs; medical equipment; Mine Resistant Ambush Protected Vehicles (MRAP); cargo and transportation equipment, including light tactical vehicles, medium tactical vehicles, water trucks, fuel trucks, and ambulances; thirty-six (36) refurbished M119A2 105mm howitzers; RF–7800V Very High Frequency (VHF) dismounted radios; spare parts, training and associated equipment related to the mentioned vehicles and artillery systems.

(iv) *Military Department:* Army (ADI, ADJ)

(v) *Prior Related Cases, if any:* None

(vi) *Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid:* None

(vii) *Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold:* None

(viii) *Date Report Delivered to Congress:* April 18, 2017

* As defined in Section 47(6) of the Arms Export Control Act.

POLICY JUSTIFICATION

Government of Iraq—Equipment for Two Peshmerga Infantry Brigades and Two Support Artillery Battalions

The Government of Iraq has requested a possible sale of the equipment necessary to fully outfit two full Peshmerga Regional Brigades of light infantry, as well as the equipment necessary to outfit two artillery battalions that will ultimately provide support to those regional brigades. These artillery battalions and infantry brigades will operate under the Kurdistan Regional Governments Ministry of Peshmerga (KRG MOP) with the concurrence of the central government. Requested equipment includes the following: (4,400) M16A4 rifles; (46) M2 50 caliber machine guns; (186) M240B machine guns; (36) M1151 HMMWVs; (77) M1151 up-armored HMMWVs; (12) 3 Kilowatt Tactical Quiet Generator sets; body armor, helmets, and other Organization Clothing and Individual Equipment (OCIE); small arms and associated accessories including tripods, cleaning kits, magazines, and mounts; mortar systems and associated equipment; Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) detection and protective equipment; dismounted and mounted radio systems; commercial navigation equipment including compasses, binoculars, and Geospatial Position System (GPS) limited to the Standard Positioning System (SPS); M1142 HMMWVs; medical equipment; Mine Resistant Ambush Protected Vehicles (MRAP); cargo and transportation equipment, including light tactical vehicles, medium tactical vehicles, water trucks, fuel trucks, and ambulances; (36) refurbished M119A2 105mm howitzers; spare parts, training and associated equipment related to the mentioned vehicles and artillery systems.

This proposed sale will contribute to the foreign policy and national security objectives of the United States, by supporting Iraq's capacity to degrade and defeat the Islamic State of Iraq and the Levant (ISIL). Iraq will have no difficulty absorbing this equipment into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

There are a number of contractors involved in this effort, including but not limited to AM General, Oshkosh Defense, Navistar Defense, Harris Radio, and Colt Corporation. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will not require the deployment of any additional U.S. Government or contractor personnel to Iraq.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

[FR Doc. 2017–08455 Filed 4–26–17; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Supplemental Notice of Intent To Prepare a Draft Environmental Impact Statement (DEIS) for the Proposed Mid-Barataria Sediment Diversion, in Plaquemines Parish, Louisiana

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DoD.

ACTION: Notice of intent.

SUMMARY: The Coastal Protection and Restoration Authority of Louisiana (CPRA) has requested approval from the U.S. Army Corps of Engineers, New Orleans District (USACE–MVN) to construct, maintain, and operate a sediment diversion structure off the right descending bank of the Mississippi River, at approximately 60.7 miles above ''Head of Passes'' in Plaquemines Parish, Louisiana. The proposed project, referred to as the Mid-Barataria Sediment Diversion (MBSD), would be designed to deliver sediment, freshwater, and nutrients from the Mississippi River into Barataria Basin. USACE–MVN intends to serve as the lead federal agency in preparing an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA). At this time, Cooperating Agencies on the EIS includes the: Environmental Protection Agency (EPA), Department of the Interior (DOI), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and U.S. Department of Agriculture (USDA). The EIS for CPRA's proposed MBSD project will inform a permit decision for a Department of Army (DA) permit pursuant to Section 404 of the Clean Water Act (Section 404) and Section 10 of the Rivers and Harbors Act of 1899 (Section 10), and permissions under Section 14 of the Rivers and Harbors Act of 1899 (Section 408). In addition to informing USACE–MVN's decisions, the EIS will inform decisions made by the *Deepwater Horizon* Natural Resource Damage Assessment Louisiana Trustee Implementation Group (NRDA LA TIG) regarding restoration evaluation and related funding decisions relevant to the *Deepwater Horizon* natural resource damage settlement, any decision by the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA NMFS) that may be required under the Marine Mammal Protection Act (MMPA), and any additional regulatory or permit

processes that may be required for the MBSD Project, to the extent practicable. USACE–MVN filed an original Notice of Intent (NOI) to prepare a DEIS for the MBSD project which was published in the **Federal Register** on October 4, 2013 (78 FR 61843). This Supplemental NOI serves to supplement the original NOI to update the MBSD project details, contact information for the proposed MBSD project, scoping provisions, and other pertinent information.

FOR FURTHER INFORMATION CONTACT: Questions concerning the DA permit process should be directed to Mr. Brad LaBorde at U.S. Army Corps of Engineers, New Orleans District, Attn: CEMVN–OD–SE, 7400 Leake Avenue, New Orleans, LA 70118, by phone (504) 862–2225, or by email at *CEMVN-Midbarataria@usace.army.mil.* Questions and comments concerning the Section 408 permissions should be directed to Mr. Brad Inman at U.S. Army Corps of Engineers, New Orleans District, Attn: CEMVN–PM–P, 7400 Leake Avenue, New Orleans, LA 70118, by phone (504) 862–2124, or by email at *CEMVN-Midbarataria@usace.army.mil.*

SUPPLEMENTARY INFORMATION:

1. *Proposed Action.* CPRA describes the MBSD project as a large scale, complex ecosystem restoration project. When operated, a maximum nominal design flow of 75,000 cubic feet per second of sediment-laden water would be diverted from the Mississippi River into the Barataria Basin to reconnect and re-establish the natural or deltaic sediment deposition process between the Mississippi River and the Barataria Basin by delivering sediment, freshwater, and nutrients to reduce land loss and maintain and sustain wetlands. The sediment diversion would be approximately 1 to 2 miles long and primary features would include a gated diversion structure, a conveyance channel, and a potential back structure (for flood protection). The secondary features of the diversion would include a pump station or other mean of forced drainage, bridge or culvert crossing at Louisiana Highway 23, concrete side walls, earthen guide levees, scour protection and erosion control, and culverted road crossings. Under Section 10 and Section 404, the District Engineer will render a permit decision for the discharge of dredged and/or fill material into the waters of the U.S., as well as work, to include the installation and maintenance of structures, in navigable waters of the U.S., based on the public interest review and Section 404(b)(1) Clean Water Act guidelines. Under 33 U.S.C. 408, the Chief of Engineers reviews the potential impacts associated with proposals, operation or construction of which use, alter or modify existing USACE–MVN projects based on whether the project would be injurious to the public interest and the potential for the proposed project to impair existing or future Civil Works projects. If constructed as proposed, the MBSD footprint would directly impact 52.3 acres of jurisdictional wetlands and 4.5 acres of waters of the U.S. The MBSD project footprint would also impact and require the potential relocation of numerous public utilities and facilities. In addition, the MBSD project would directly and/or indirectly impact multiple USACE–MVN projects, including but not limited to, projects within the Mississippi River & Tributaries Program; the Mississippi River (federal navigation) Ship Channel, the Gulf to Baton Rouge, Louisiana project; and the future New Orleans to Venice (NOV) Hurricane Protection Levee project.

2. *Alternatives.* The EIS will address an array of alternatives based on the project purpose and need. USACE must identify the ''overall'' project purpose, evaluate practicable alternatives, and determine whether the project is water dependent. Some alternatives will be considered from, but not limited to, existing studies including the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) Program, Louisiana Coastal Area (LCA) Ecosystem Restoration Study, LCA Medium Diversion at Myrtle Grove with Dedicated Dredging Feasibility Study, the State and non-governmental organizations (NGOs) Myrtle Grove Delta Building Diversion Modeling Effort in Support of LCA Medium Diversion at Myrtle Grove with Dedicated Dredging, the 2012 Louisiana Coastal Master Plan (LCMP), and the 2017 LCMP. The LA TIG may develop alternatives based on considerations under the Oil Pollution Act (OPA) NRDA restoration planning process and associated decision-making. Alternatives for purposes of any additional regulatory or permitting processes also would be developed and evaluated to the extent practical. Other alternatives may be developed through the NEPA scoping process.

3. *Scoping.* Scoping is the NEPA process utilized for seeking public involvement in determining the range of alternatives and significant issues to be addressed in the EIS USACE–MVN invites full public participation to promote open communication on the issues surrounding the proposed action. The public will be involved in the scoping and evaluation process through advertisements, notices, and other means. Project information will also be available on USACE–MVN's Web site at: *http://www.mvn.usace.army.mil/Missions/Regulatory/Permits/Mid-Barataria-Sediment-Diversion-EIS/.* All individuals, organizations, NGOs, affected Indian tribes, and local, state, and Federal agencies that have an interest are urged to participate in the scoping process. Public scoping meeting(s) will be held to present information to the public and to receive comments from the public. The date, time, and location of the scoping meeting(s) will be announced once determined on the USACE–MVN public notice Web page (*http://www.mvn.usace.army.mil/Missions/Regulatory/Public-Notices/*) and in any other forms deemed appropriate. Comments will also be accepted via email or postal mail; USACE–MVN will provide information to the public as to where, when, and how to submit comments. Scoping meetings may happen in coordination with NOAA and the NRDA LA TIG in order to present to the public, solicit comments and inform other required authorizations and collaborative restoration evaluation involving the proposed project.

4. *Potentially Significant Issues.* The EIS will analyze the potential impacts on the human and natural environment resulting from the project. The scoping, public involvement, and interagency coordination processes will help identify and define the range of potential significant issues that will be considered. Important resources and issues evaluated in the EIS could include, but are not limited to, the direct, indirect, and cumulative effects on tidal wetlands and other waters of the U.S.; aquatic resources; commercial and recreational fisheries; wildlife resources; essential fish habitat; water quality; cultural resources; geology and soils including agricultural land and prime and unique farmland; hydrology and hydraulics; air quality; marine mammals; threatened and endangered species and their critical habitat; net impacts on ecosystem services; navigation and navigable waters; induced flooding; employment; land use; property values; tax revenues; population and housing; community and regional growth; environmental justice; community cohesion; public services; recreation; transportation and traffic; utilities and community service systems; and cumulative effects of related projects in the study area. USACE–MVN will also consider issues identified and comments made throughout scoping, public involvement, and interagency

coordination. USACE–MVN expects to better define the issues of concern and the methods that will be used to evaluate those issues through the scoping process.

5. *Environmental Consultation and Review.* USACE–MVN anticipates developing an EIS that meets NEPA requirements of several federal agencies evaluating whether to authorize and/or fund the proposed project. At this time the cooperating agencies includes: EPA, DOI, NOAA, NMFS, USFWS, and USDA. Other federal interests in the development of the EIS include those related to NMFS's obligations under the MMPA and the NRDA LA TIG Federal trustees' obligations under OPA NRDA regulations, Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement, and the Consent Decree entered into in *In re: Oil Spill by the Oil Rig* ''*Deepwater Horizon*'' *In the Gulf of Mexico.* In addition to the federal interests noted above for general development of the EIS, USFWS will assist in documenting existing conditions and assessing effects of project alternatives through the Fish and Wildlife Coordination Act consultation procedures. Consultation will be accomplished with USFWS and NMFS concerning threatened and endangered species and their critical habitat per the Endangered Species Act. NMFS will be consulted regarding the effects of this proposed action on Essential Fish Habitat per the Magnuson-Stevens Fisheries Conservation and Management Act. USACE–MVN anticipates CPRA will submit an application for an incidental take authorization to NMFS in accordance with the MMPA.

Questions regarding consultation or compliance requirements described herein, will be directed to the appropriate jurisdictional agency.

6. The USACE–MVN will consult with the Louisiana State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officers (THPO), per the National Historic Preservation Act.

7. *Availability.* The DEIS is presently scheduled to be available for public review and comment by April 30, 2020. All comments received throughout the review process will become part of the administrative record for the proposed MBSD project and subject to public release.

8. *NRDA LA TIG NOI:* The *Deepwater Horizon* NRDA LA TIG has published a Notice of Initiation of Restoration Planning that seeks to facilitate public involvement and streamline future processes by specifically seeking public comment on a controlled river diversion in Barataria Basin, such as the MBSD, in a future Restoration Plan under OPA. To facilitate the potential consideration of the MBSD under OPA, it is the intent of the NRDA LA TIG Trustees to assist the USACE in the preparation of the EIS for the Mid-Barataria Sediment Diversion.

Brenda S. Bowen,

Army Federal Register Liaison Officer.

[FR Doc. 2017–08413 Filed 4–26–17; 8:45 am]

BILLING CODE 3720–58–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2017–ICCD–0054]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; Consolidated State Plan Assurances Template

AGENCY: Office of Elementary and Secondary Education (OESE), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, ED is proposing a non-substantive change to an existing collection.

DATES: Interested persons are invited to submit comments on or before May 5, 2017.

ADDRESSES: To access and review all the documents related to the information collection listed in this notice, please use *http://www.regulations.gov* by searching the Docket ID number ED–2017–ICCD–0054. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Room 226–62, Washington, DC 20202–4537.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Melissa Siry, (202)260–0926.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology.

Note: OESE requests public comment on a non-substantive change to an existing collection approved under 1810–0576 currently running a separate comment period under ED–2017–ICCD–0021. OESE is seeking OMB approval to use these non-substantive changes to the assurances data collection instrument by May 17, 2017. You may provide comments to the assurances template under 1810–0576 ED–2017–ICCD–0054 by May 5, 2017. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Consolidated State Plan Assurances Template.

OMB Control Number: 1810–0576.

Type of Review: Non-substantive change to an existing collection.

Respondents/Affected Public: State, Local and Tribal Governments.

Total Estimated Number of Annual Responses: 52.

Total Estimated Number of Annual Burden Hours: 108,155.

Abstract: On March 9, 2017, pursuant to the Congressional Review Act (CRA) (5 U.S.C. 801–808), Congress approved a joint resolution disapproving the U.S. Department of Education's (Department's) regulations related to State plans, including consolidated State plans, statewide accountability systems, and data reporting. The President signed the Congressional resolution on March 27, 2017, which means that the regulations have no force or effect. As a result, the Department updated the assurances that each State must submit in order to receive FY 2017 funding to align only with the statutory assurances required in ESEA Section

8304. The revised assurances template includes an annotated version of ESEA Section 8304 which specifically references consultation requirements and two certifications that SEAs are assuring to by completing the assurances template. Finally, we included a reference, with no associated burden, to other approved forms the SEA will need to complete.

Dated: April 24, 2017.

Tomakie Washington,

Acting Director, Information Collection Clearance Division, Office of the Chief Privacy Officer, Office of Management.

[FR Doc. 2017–08494 Filed 4–26–17; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2017–ICCD–0057]

Agency Information Collection Activities; Comment Request; Loan Discharge Applications (DL/FFEL/Perkins)

AGENCY: Department of Education (ED), Federal Student Aid (FSA).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, ED is proposing an extension of an existing information collection.

DATES: Interested persons are invited to submit comments on or before June 26, 2017.

ADDRESSES: To access and review all the documents related to the information collection listed in this notice, please use *http://www.regulations.gov* by searching the Docket ID number ED–2017–ICCD–0057. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Room 224–84, Washington, DC 20202–4537.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Beth Grebeldinger, 202–377–4018.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Loan Discharge Applications (DL/FFEL/Perkins).

OMB Control Number: 1845–0058.

Type of Review: An extension of an existing information collection.

Respondents/Affected Public: Individuals or Households.

Total Estimated Number of Annual Responses: 30,051.

Total Estimated Number of Annual Burden Hours: 15,027.

Abstract: The Department of Education is requesting an extension of the currently approved information collection. This information collection is necessary for loan holders in the FFEL, Direct Loan, and Perkins Loan programs to obtain the information that is needed to determine whether a borrower qualifies for a closed school or false certification loan discharge. The loan discharge regulations in all three loan programs require borrowers who seek discharge of their FFEL, Direct Loan, or Perkins Loan program loans to request a loan discharge and provide their loan holders with certain information in writing.

This information collection includes the following five loan discharge applications that are used to obtain the information needed to determine whether a borrower qualifies for a closed school discharge, false certification—ATB, false certification—disqualifying status, false certification—unauthorized signature/unauthorized payment or unpaid refund loan discharges.

Dated: April 24, 2017.

Kate Mullan,

Acting Director, Information Collection Clearance Division, Office of the Chief Privacy Officer, Office of Management.

[FR Doc. 2017–08515 Filed 4–26–17; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP17–133–000]

Northwest Pipeline LLC; Notice of Application

Take notice that on April 6, 2017, Northwest Pipeline LLC (Northwest), having its principal place of business at 295 Chipeta Way, Salt Lake City, Utah 84108 filed in the above referenced docket an application pursuant to section 7(b) and 7(c) of the Natural Gas Act (NGA), and Part 157 of the Commission's regulations requesting authorization to Northwest proposes to (1) remove and replace 1,700 feet of 30-inch pipeline and (2) remove 1,550 feet of previously abandoned-in-place 26-inch pipeline located in Whatcom County, Washington referred to as Nooksack Line Lowering Project (Project), all as more fully set forth in the application which is on file with the Commission and open to public inspection. The Project is designed to reduce the exposure to the pipeline caused by river channel migration and improve reliability for the benefit of existing customers. The total cost of the Project is approximately $16,585,331. The filing is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's Web site web 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. For assistance, contact FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

Any questions concerning this application may be directed to Richard N. Stapler Jr., Business Development, 295 Chipeta Way, Salt Lake City, Utah 84108, by phone at (801) 584–6883, by fax (801) 584–6496 or by emailing *richard.stapler@williams.com.*

Pursuant to section 157.9 of the Commission's rules (18 CFR 157.9), within 90 days of this Notice, the

Commission staff will either: Complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit seven copies of filings made in the proceeding with the Commission and must mail a copy to the applicant and to every other party. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commentors will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commentors will not be required to serve copies of filed documents on all other parties. However, the non-party commentors will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, 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 7 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

Comment Date: 5:00 p.m. Eastern Time on May 11, 2017.

Kimberly D. Bose,

Secretary.

[FR Doc. 2017–08472 Filed 4–26–17; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP17–172–000]

Navitas TN NG, LLC; Notice of Application

Take notice that on April 13, 2017, Navitas TN NG, LLC (Navitas), 3186D Airway Avenue, Costa Mesa, California 92626, filed an application, pursuant to section 7(f) of the Natural Gas Act (NGA),[1] requesting that the Commission make a service area determination to allow it to enlarge or expand its natural gas distribution facilities across the Tennessee/Kentucky border without further Commission authorization. Navitas also requests a determination that it qualifies as a local distribution company for purposes of section 311 of the Natural Gas Policy Act of 1978 (NGPA) and a waiver of all accounting and reporting requirements and other regulatory requirements ordinarily applicable to natural gas companies under the NGA and the NGPA, all as more fully described in the application which is on file with the Commission and open to public inspection. The filing may also be viewed on the web 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. For assistance, contact FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (866) 208–3676 or TTY, (202) 502–8659.

Specifically, Navitas, a Tennessee local distribution company providing natural gas service to customers in north-central Tennessee and regulated by the Tennessee Regulatory Authority, request a service area determination to operate across the Tennessee/Kentucky border in order to service a small number of Kentucky customers.

Any questions regarding this application should be directed to Thomas Hartline, Navitas Utility Corporation, 3186D Airway Avenue, Costa Mesa, CA 92626, or call (714) 242–4064, or by email *thartline@navitasutility.com.*

Pursuant to section 157.9 of the Commission's rules, 18 CFR 157.9, within 90 days of this Notice the Commission staff will either: Complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party

[1] 15 U.S.C. 717, *et seq.*

status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 7 copies of filings made in the proceeding with the Commission and must mail a copy to the applicant and to every other party. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commentors will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commentors will not be required to serve copies of filed documents on all other parties. However, the non-party commentors will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, 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 5 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

Comment Date: 5:00 p.m. Eastern Time on May 11, 2017.

Dated: April 20, 2017.

Kimberly D. Bose,

Secretary.

[FR Doc. 2017–08474 Filed 4–26–17; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP17–171–000]

Navitas KY NG, LLC; Notice of Application

Take notice that on April 13, 2017, Navitas KY NG, LLC (Navitas), 3186D Airway Avenue, Costa Mesa, California 92626, filed an application, pursuant to section 7(f) of the Natural Gas Act (NGA),[1] requesting that the Commission make a service area determination to allow it to enlarge or expand its natural gas distribution facilities across the Kentucky/Tennessee border without further Commission authorization. Navitas also requests a determination that it qualifies as a local distribution company for purposes of section 311 of the Natural Gas Policy Act of 1978 (NGPA) and a waiver of all accounting and reporting requirements and other regulatory requirements ordinarily applicable to natural gas companies under the NGA and the NGPA, all as more fully described in the application which is on file with the Commission and open to public inspection. The filing may also be viewed on the web 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. For assistance, contact FERC at *FERCOnlineSupport@ferc.gov* or call toll-free, (866) 208–3676 or TTY, (202) 502–8659.

Specifically, Navitas, a Kentucky local distribution company regulated by the Kentucky Public Service Commission and providing natural gas service to approximately 125 customers in Albany, Clinton County Kentucky in the southern portion of the state adjacent to the Tennessee border, request a service area determination to operate across the Tennessee border into Pickett County Tennessee near Byrdstown in order to access a natural gas supply interconnection, the B&W Pipeline, to service its Kentucky customers. Navitas' application is related to B&W Pipeline, Inc.'s application for a limited jurisdiction blanket certificate of public convenience and necessity filed in Docket No. CP17–78–000 on March 17, 2017.

Any questions regarding this application should be directed to Thomas Hartline, Navitas Utility Corporation, 3186D Airway Avenue, Costa Mesa, CA 92626, or call (714) 242–4064, or by email *thartline@navitasutility.com.*

Pursuant to section 157.9 of the Commission's rules, 18 CFR 157.9, within 90 days of this Notice the Commission staff will either: complete its environmental assessment (EA) and place it into the Commission's public record (eLibrary) for this proceeding; or issue a Notice of Schedule for Environmental Review. If a Notice of Schedule for Environmental Review is issued, it will indicate, among other milestones, the anticipated date for the Commission staff's issuance of the final environmental impact statement (FEIS) or EA for this proposal. The filing of the EA in the Commission's public record for this proceeding or the issuance of a Notice of Schedule for Environmental Review will serve to notify federal and state agencies of the timing for the completion of all necessary reviews, and the subsequent need to complete all federal authorizations within 90 days of the date of issuance of the Commission staff's FEIS or EA.

There are two ways to become involved in the Commission's review of this project. First, any person wishing to obtain legal status by becoming a party to the proceedings for this project should, on or before the comment date stated below file with the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426, a motion to intervene in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 385.214 or 385.211) and the Regulations under the NGA (18 CFR 157.10). A person obtaining party status will be placed on the service list maintained by the Secretary of the Commission and will receive copies of all documents filed by the applicant and by all other parties. A party must submit 7 copies of filings made in the proceeding with the Commission and must mail a copy to the applicant and to every other party. Only parties to the proceeding can ask for court review of Commission orders in the proceeding.

However, a person does not have to intervene in order to have comments considered. The second way to participate is by filing with the Secretary of the Commission, as soon as possible, an original and two copies of comments in support of or in opposition to this project. The Commission will consider these comments in

[1] 15 U.S.C. 717, *et seq.*

determining the appropriate action to be taken, but the filing of a comment alone will not serve to make the filer a party to the proceeding. The Commission's rules require that persons filing comments in opposition to the project provide copies of their protests only to the party or parties directly involved in the protest.

Persons who wish to comment only on the environmental review of this project should submit an original and two copies of their comments to the Secretary of the Commission. Environmental commentors will be placed on the Commission's environmental mailing list, will receive copies of the environmental documents, and will be notified of meetings associated with the Commission's environmental review process. Environmental commentors will not be required to serve copies of filed documents on all other parties. However, the non-party commentors will not receive copies of all documents filed by other parties or issued by the Commission (except for the mailing of environmental documents issued by the Commission) and will not have the right to seek court review of the Commission's final order.

The Commission strongly encourages electronic filings of comments, 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 5 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426.

Comment Date: 5:00 p.m. Eastern Time on May 11, 2017.

Dated: April 20, 2017.

Kimberly D. Bose,

Secretary.

[FR Doc. 2017–08473 Filed 4–26–17; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG17–99–000.

Applicants: Horse Hollow Wind III, LLC.

Description: Notice of Self-Certification of Exempt Wholesale Generator Status of Horse Hollow Wind III, LLC.

Filed Date: 4/19/17.

Accession Number: 20170419–5209.

Comments Due: 5 p.m. ET 5/10/17.

Docket Numbers: EG17–100–000.

Applicants: Post Wind, LLC.

Description: Notice of Self-Certification of Exempt Wholesale Generator Status of Post Wind, LLC.

Filed Date: 4/19/17.

Accession Number: 20170419–5210.

Comments Due: 5 p.m. ET 5/10/17.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER17–1438–000.

Applicants: Radford's Run Wind Farm, LLC.

Description: Baseline eTariff Filing: Application for Market Based Rate to be effective 6/1/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5019.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1439–000.

Applicants: Southwest Power Pool, Inc.

Description: § 205(d) Rate Filing: 3317 WAPA & East River Electric Power Interconnection Agr to be effective 4/3/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5094.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1440–000.

Applicants: NorthWestern Corporation.

Description: Tariff Cancellation: Notice of Cancellation: SA 791, Utilities Agreement with MDT (Armington Slope) to be effective 4/21/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5098.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1441–000.

Applicants: ISO New England Inc., New England Power Pool Participants Committee.

Description: § 205(d) Rate Filing: Changes to ISO–NE Financial Assurance Policy to be effective 9/12/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5106.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1442–000.

Applicants: Axiall, LLC.

Description: Baseline eTariff Filing: Application for Market Based Rate to be effective 5/26/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5137.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1443–000.

Applicants: Southwest Power Pool, Inc.

Description: § 205(d) Rate Filing: 2014 Southwestern Power Administration Amendatory Agreement Sixth Extension to be effective 4/1/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5140.

Comments Due: 5 p.m. ET 5/11/17.

Docket Numbers: ER17–1444–000.

Applicants: Midcontinent Independent System Operator, Inc.

Description: § 205(d) Rate Filing: 2017–04–20_Day-Ahead Margin Assurance Payment (DAMAP) filing to be effective 4/21/2017.

Filed Date: 4/20/17.

Accession Number: 20170420–5168.

Comments Due: 5 p.m. ET 5/11/17.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 20, 2017.

Kimberly D. Bose,

Secretary.

[FR Doc. 2017–08471 Filed 4–26–17; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2323–216]

TransCanada Hydro Northeast Inc.; Notice of Application Accepted for Filing and Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Application Type:* Request to Amend License Articles 401, 402, 403 and 406 to lower Somerset Reservoir elevation target for loon nesting.

b. *Project No:* P–2323–216.

c. *Date Filed:* April 10, 2017.

d. *Applicant:* TransCanada Hydro Northeast Inc.

e. *Name of Project:* Deerfield River Project.

f. *Location:* The project is located on the Deerfield River, in Windham and

Bennington counties, Vermont, and Franklin and Berkshire counties, Massachusetts.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791a–825r.

h. *Applicant Contact:* John Ragonese, TransCanada Hydro Northeast Inc., 4 Park Street, Suite 402, Concord, NH 03301–6373, (603) 225–5528.

i. *FERC Contact:* Zeena Aljibury, (202) 502–6065, *zeena.aljibury@ferc.gov.*

j. *Deadline for filing comments, motions to intervene, and protests:* May 5, 2017.

The Commission strongly encourages electronic filing. Please file motions to intervene, protests, comments, or recommendations using the Commission's eFiling system at *http://www.ferc.gov/docs-filing/efiling.asp.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *http://www.ferc.gov/docs-filing/ecomment.asp.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE., Washington, DC 20426. The first page of any filing should include docket number P–2323–216.

k. *Description of Request:* TransCanada Hydro Northeast, Inc. requests approval to amend license Articles 401, 402, 403, and 406 as well as the approved Vermont Flow Monitoring and Reservoir Operations Plan to adjust the target elevation of Somerset Reservoir during the common loon nesting period from 2,128.58 feet mean sea level (msl) to 2,128.23 feet msl, as requested by the Vermont Agency of Natural Resources and the Vermont Division of Fish and Wildlife to protect observed loon nests. The licensee also requests, with agency support, to change the target elevation period from May 1 to May 15 to align with the end of the minimum flow constraint at the Searsburg development and avoid conflicting resource requirements. Finally, the licensee proposes, with agency support, to adjust the start of operations data collection for reporting to the resources agencies from April 1 to April 15.

l. *Locations of the Application:* A copy of the application 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 (P–2323) in the docket number field to access the document. You may also register online at *http://www.ferc.gov/docs-filing/esubscription.asp* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1–866–208–3676 or email *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. Agencies may obtain copies of the application directly from the applicant.

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, respectively. 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. *Filing and Service of Documents:* Any filing must (1) bear in all capital letters the title ''COMMENTS'', ''PROTEST'', or ''MOTION TO INTERVENE'' as applicable; (2) set forth in the heading the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person commenting, protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). All comments, motions to intervene, or protests should relate to project works that are the subject of the license amendment. Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon each representative of the applicant specified in the particular application. 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 all other filings in reference to this application must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 4.34(b) and 385.2010.

Dated: April 20, 2017.

Kimberly D. Bose,

Secretary.

[FR Doc. 2017–08475 Filed 4–26–17; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–17–17NW; Docket No. CDC–2017–0011]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing efforts to reduce public burden and maximize the utility of government information, 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. This notice invites comment on a new information collection project titled ''A Novel Framework for Structuring Industry-Tuned Public-Private Partnerships and Economic Incentives for U.S. Health Emergency Preparedness and Response''. This data collection will conduct interviews with industry leaders and survey private sector organization managers to systematically evaluate and explore the partnership preferences of private sector organizations, specifically when they are interacting or considering an interaction with government agencies.

DATES: Written comments must be received on or before June 26, 2017.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2017–0011 by any of the following methods:

- *Federal eRulemaking Portal: Regulations.gov.* Follow the instructions for submitting comments.

• *Mail:* Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *Regulations.gov*, including any personal information provided. For access to the docket to read background documents or comments received, go to *Regulations.gov*.

Please note: All public comment should be submitted through the Federal eRulemaking portal (Regulations.gov) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Leroy A. Richardson, of the Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov*.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

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 of the proposed collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information, to search data sources, to complete and review the collection of information; and to transmit or otherwise disclose the information.

Proposed Project

A Novel Framework for Structuring Industry-Tuned Public-Private Partnerships and Economic Incentives for U.S. Health Emergency Preparedness and Response—New—Office of Public Health Preparedness and Response, Centers for Disease Control and Prevention (CDC).

Background and Brief Description

Despite the important role of public-private partnerships in supporting the U.S.'s public health preparedness and response mission, many partnership efforts are not successful due to poorly aligned incentives or lack of awareness of external market factors. There is little research or information on private sector incentive structures and partnership opportunities and barriers specific to public health preparedness and response. This study will evaluate the effectiveness of public-private partnership incentives from the perspective of private sector industries within the public health preparedness and response space.

CDC proposes to collect information from the private industry leaders in the public health preparedness and response space to accomplish this goal. Study activities will include (1) identifying public-private partnership incentives and target industries for public health preparedness and response; (2) conducting interviews with industry leaders in person or via telephone to identify related public health emergency preparedness activities and partnership opportunities and barriers; and (3) surveying private sector organization managers using on-line technology (Qualtrics) on key issues and attractiveness of partnership opportunities and incentives; and develop a framework to identify partnership target organizations, opportunities, and incentives to promote public health emergency preparedness capabilities.

The information collection request is composed of two parts: (1) Interviews and (2) an on-line general survey distributed. The targeted interviews will seek respondents in the following eight sectors: Pharmaceutical/life sciences (n = 8), health IT/mobile (n = 8), retailers/distributors (n = 6), academia/research organization (n = 6), hospital/healthcare provider (n = 5), health insurance (n = 4), logistics/transportation (n = 4), and charitable organization/foundation (n = 4). The interview questions and the information collected will vary significantly across the different sectors.

The survey portion of the information collection will be a larger survey that will be sent to 200 individuals to reach a total sample population of 100 (assuming a 50% response rate). The interviews and survey will only be administered one time to each individual respondent. CDC plans to conduct interviews and surveys within six months after OMB approval.

Members of the research team will conduct the interviews. Surveys will be conducted using the secure online software Qualtrics, and respondents will receive an email with a unique link that will direct them to the Qualtrics survey platform. All data will then be transferred to CDC's preferred Secure File Transfer Protocol (SFTP) client, where it will be stored and later accessed securely by members of the research team. After this transfer, all copies of the data that reside outside of the SFTP will be destroyed. Only the research team will have access to the interview transcripts and survey responses that will link responses to personally identifiable information. Any printed or hand-written documents containing PII will be stored securely in locked file cabinets when not in use, and will be destroyed once the information has been scanned or otherwise transferred into electronic files (which will also be transferred to the SFTP client). Access to the SFTP will require the user to enter a host address, username, password and port number, all of which will only be provided to the research team.

CDC will make the collected data available only to research team members for analysis and will maintain the data for the duration of the study. Identifiable information may be filed by the name of respondent on the SFTP, but it will not be removed from the SFTP in that format. Any information removed from the SFTP client to be shared with outside parties will be presented in aggregated and de-identified form, unless otherwise

compelled by law. CDC will retain and destroy all records in accordance with the applicable CDC Records Control Schedule.

OPHPR is requesting an approval period of one year to collect this information. There are no cost burdens to respondents or record keepers for this data collection. The total time burden to respondents is 70 hours. See a summary of the annualized burden hours in the below table.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hrs.)	Total burden (in hrs.)
Private Sector Organization Senior Leader	Interview Plan	45	1	1	45
Private Sector Organization Manager	Survey Plan	100	1	15/60	25
Total					70

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director' Centers for Disease Control and Prevention.

[FR Doc. 2017–08540 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day-17–17ABU; Docket No. CDC–2017–0037]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing efforts to reduce public burden and maximize the utility of government information, 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. This notice invites comment on a proposed data collection project titled ''Emergency Zika Package: Zika Reproductive Health Call-Back Survey ZRHCS), 2017.''

DATES: Written comments must be received on or before June 26, 2017.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2017–0037 by any of the following methods:

- *Federal eRulemaking Portal: Regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *Regulations.gov,* including any personal information provided. For access to the docket to read background documents or comments received, go to *Regulations.gov.*

Please note: All public comment should be submitted through the Federal eRulemaking portal (Regulations.gov) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov.*

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

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 of the proposed collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information, to search data sources, to complete and review the collection of information; and to transmit or otherwise disclose the information.

Proposed Project

Zika Reproductive Health Call-Back Survey (ZRHCS), 2017—New—National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

In May 2015, the World Health Organization reported the first local mosquito born transmission of Zika virus in the Western Hemisphere, with autochthonous cases identified in Brazil. In response to the Zika virus outbreak, and evidence that Zika virus infection during pregnancy is a cause

microcephaly and other adverse pregnancy and infant outcomes, CDC's Emergency Operations Center has continued to work at the highest level of activation since February 8, 2016. To date, local transmission has been identified in at least 50 countries or territories in the Americas; within the United States, widespread mosquito born transmission has been documented in the territories of Puerto Rico and the US Virgin Islands, and more localized transmission has been observed in Florida and Texas. In addition in the continental United States, there has been a large number of travel-related cases with infection occurring through mosquito born and sexual transmission.

Given the adverse pregnancy and birth outcomes associated with Zika virus infection during pregnancy, increasing access to effective contraception is a key countermeasure for preventing unintended pregnancies that might otherwise be affected by Zika. In addition, even in the absence of disease outbreaks that can lead to negative pregnancy and birth outcomes, access to contraception is needed to help prevent the 45% of pregnancies in the United States that are unintended. Given that the proportion of pregnancies that are unintended varies widely across states, it is important to identify populations with high unmet need for contraception to implement targeted strategies for increasing access to and availability of effective contraception. Additionally, it is important for women who are at risk of becoming pregnant unintentionally, or who are planning a pregnancy, to be knowledgeable of behaviors for preventing mosquito born and sexual transmission of Zika and recommendations for waiting to get pregnant after they or their partner have returned from an area with Zika.

The objective of this assessment is to collect scientifically valid, current information on various aspects of Zika knowledge and prevention behaviors from a representative sample of adult women of reproductive age (aged 18–49 years) in 14 states/territories, including information: (1) The use of contraception among women wishing to avoid or delay pregnancies that might otherwise be affected by Zika; (2) barriers to access and use of contraception; (3) knowledge of and adherence to mosquito prevention strategies and use of condoms to minimize the risk of sexual transmission; and (4) frequency of travel to Zika areas and knowledge of and adherence to travel recommendations. The 14 jurisdictions included have had widespread local transmission, are at high risk for local transmission, and/or have a disproportionately high number of travel-related cases.

The information collected will be provided to state and territory health departments to provide a basis on which to develop emergency response plans for potential outbreaks and make decisions regarding the distribution of finite resources to prevent Zika virus infection during pregnancy. Given the potential for new outbreaks and increases in cases in areas with Zika as the summer travel and mosquito season approaches, an interim data set and report would be made available to states no later than June, 2017. Additionally, in the event that a jurisdiction has an increase in Zika cases or newly reported local transmission, interim data will be analyzed and provided within 10 business days to aid in emergency response planning.

Participation is voluntary and there are no costs to respondents other than their time.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hrs.)	Total burden hours
Women aged 18–49 years who completed the main BRFSS survey.	Recruitment text	14,508	1	1/60	242
Women aged 18–49 years from areas with local Zika transmission.	Call-back Survey and Consent, Version A.	2,000	1	10/60	333
Women aged 18–49 years from areas where travel related Zika predominates.	Call-back Survey and Consent, Version B.	12,000	1	12/60	2,400
State BRFSS Coordinators	Data Submission Layout	14	8	3	336
Total					3,311

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Centers for Disease Control and Prevention.

[FR Doc. 2017–08493 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–17–0879; Docket No. CDC–2017–0044]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing effort to reduce public burden and maximize the utility of government information, 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. This notice invites comment on the information collection project titled ''Information Collections to Advance State, Tribal, Local and Territorial (STLT) Governmental Agency and System Performance, Capacity, and Program Delivery.'' Information, collected across a range of public health topics using standard modes of administration (*e.g.,* web, in-

person, phone), will be used to assess situational awareness of current public health emergencies; make decisions that affect planning, response and recovery activities of subsequent emergencies; fill CDC gaps in knowledge of programs and/or STLT governments that will strengthen surveillance, epidemiology, and laboratory science; improve CDC's support and technical assistance to states and communities.

DATES: Written comments must be received on or before June 26, 2017.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2017–0044 by any of the following methods:

- *Federal eRulemaking Portal: Regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road, NE., MS–D74, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *Regulations.gov*, including any personal information provided. For access to the docket to read background documents or comments received, go to *Regulations.gov.*

Please note: All public comment should be submitted through the Federal eRulemaking portal (regulations.gov) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov.*

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

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 of the proposed collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information, to search data sources, to complete and review the collection of information; and to transmit or otherwise disclose the information.

Proposed Project

Information Collections to Advance State, Tribal, Local and Territorial (STLT) Governmental Agency and System Performance, Capacity, and Program Delivery (OMB Control No. 0920–0879, Expiration date, 3/31/2018)—Extension—Office for State, Tribal Local and Territorial Support (OSTLTS), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

The mission of the Department of Health and Human Services is to help provide the building blocks that Americans need to live healthy, successful lives. As part of HHS, CDC's mission is to create the expertise, information, and tools that people and communities need to protect their health—through health promotion, prevention of disease, injury and disability, and preparedness for new health threats. CDC and HHS seek to accomplish its mission by collaborating with partners throughout the nation and the world to: Monitor health, detect and investigate health problems, conduct research to enhance prevention, develop and advocate sound public health policies, implement prevention strategies, promote healthy behaviors, foster safe and healthful environments, and provide leadership and training.

CDC is requesting a three-year approval for a generic clearance to collect information related to domestic public health issues and services that affect and/or involve state, tribal, local and territorial (STLT) government entities.

The respondent universe is comprised of STLT governmental staff or delegates acting on behalf of a STLT agency involved in the provision of essential public health services in the United States. Delegate is defined as a governmental or non-governmental agent (agency, function, office or individual) acting for a principal or submitted by another to represent or act on their behalf. The STLT agency is represented by a STLT entity or delegate with a task to protect and/or improve the public's health.

Information will be used to assess situational awareness of current public health emergencies; make decisions that affect planning, response and recovery activities of subsequent emergencies; fill CDC and HHS gaps in knowledge of programs and/or STLT governments that will strengthen surveillance, epidemiology, and laboratory science; improve CDC's support and technical assistance to states and communities. CDC and HHS will conduct brief data collections, across a range of public health topics related to essential public health services.

CDC estimates up to 30 data collections with STLT governmental staff or delegates, and 10 data collections with local/county/city governmental staff or delegates will be conducted on an annual basis. Ninety-five percent of these data collections will be web-based and five percent telephone, in-person, and focus groups. The total annualized burden of 54,000 hours is based on the following estimates.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per respondent (in hours)	Total burden (in hours)
State, Territorial, or Tribal government staff or delegate.	Web, telephone, in-person, focus group.	800	30	1	24,000
Local/County/City government staff or delegate.	Web, telephone, in-person, focus group.	3,000	10	1	30,000
Total					54,000

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Centers for Disease Control and Prevention.

[FR Doc. 2017–08491 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–17–1039; Docket No. CDC–2017–0040]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing efforts to reduce public burden and maximize the utility of government information, 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. This notice invites comment on a proposed revision to the information collection project titled ''Information Collection on Cause-Specific Absenteeism in Schools.'' Changes include a revised title. The proposed title is ''Information Collection on Cause-Specific Absenteeism in Schools and Evaluation of Influenza Transmission within Student Households.'' The project will continue to address the original aim of improving our understanding of the role of influenza-like illness (ILI)—specific absenteeism in schools in predicting community-wide influenza transmission.

DATES: Written comments must be received on or before June 26, 2017.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2017–0040 by any of the following methods:

- *Federal eRulemaking Portal: Regulations.gov*. Follow the instructions for submitting comments.
- *Mail:* Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *Regulations.gov*, including any personal information provided. For access to the docket to read background documents or comments received, go to *Regulations.gov*.

Please note: All public comment should be submitted through the Federal eRulemaking portal (*Regulations.gov*) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov*.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

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 of the proposed collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information, to search data sources, to complete and review the collection of information; and to transmit or otherwise disclose the information.

Proposed Project

Information Collection on Cause-Specific Absenteeism in Schools and Evaluation of Influenza Transmission within Student Households (OMB Control Number 0920–1039; expires 12/31/2017)—Revision—National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

The CDC's Division of Global Migration and Quarantine (DGMQ), requests approval of an information collection project that will allow for improved understanding of the role of influenza-like illness (ILI)-specific absenteeism in schools in predicting community-wide influenza transmission. The collection will also allow for within-household influenza transmission where students have been absent from school due to ILI. CDC is seeking three-year clearance to collect this data.

Since receiving Office of Management and Budget (OMB) approval in December 2014, CDC enrolled 651 students in the study. Of them, 58% were positive for at least one respiratory pathogen included in the Polymerase chain reaction (PCR) panel that tests for presence of 17 common respiratory viruses, and 27% of the students were found to be positive for influenza. It was demonstrated that absenteeism due to ILI in school children was highly correlated with PCR-confirmed influenza in enrolled school children and with medically-attended influenza in the surrounding community suggesting that ILI-specific school absenteeism can be considered a useful tool for predicting influenza outbreaks in the surrounding community. However, more observations during influenza seasons caused by other influenza strains are needed to make these findings more robust.

The information collection for which approval is sought is in accordance with CDC's and DGMQ's missions to reduce morbidity and mortality in mobile populations, and to prevent the introduction, transmission, or spread of communicable diseases within the United States. Insights gained from this information collection will assist in the planning and implementation of CDC Pre-Pandemic Guidance on the use of school related measures, including school closures, to slow transmission during an influenza pandemic.

School closures were considered an important measure during the earliest stage of the 2009 H1N1 pandemic, because a pandemic vaccine was not available until October (6 months later), and sufficient stocks to immunize all school-age children were not available until December. However, retrospective review of the U.S. government response to the pandemic identified a limited evidence-base regarding the effectiveness, acceptability, and feasibility of various school related measures during mild or moderately severe pandemics. Guidance updates will require an evidence-based rationale for determining the appropriate triggers, timing, and duration of school related measures, including school closures, during a pandemic.

CDC staff proposes that the revised information collection for this package will target adult and child populations in a school district in Wisconsin. CDC will continue collecting reports from students absent from school due to ILI including information on individual student symptoms, vaccination status, recent travel, recent exposure to people with influenza symptoms, and duration of illness. The proposed revision will include collecting data from household members of students absent from school due to ILI. Household members will provide information on household composition, individual influenza vaccination status, presence of ILI symptoms, severity of illness, related healthcare visits, diagnosis and treatment, and missed work or school. This will be accomplished through telephone and in-person interviews.

Findings obtained from this information collection will be used to inform and update CDC's Pre-pandemic Guidance on the implementation of school related measures to prevent the spread of influenza, especially school closures. The Guidance is used as an important planning and reference tool for both State and local health departments in the United States.

There is no cost to respondents other than their time. The estimated annualized number of burden hours are 365.

Authorizing legislation includes Section 361 of the Public Health Service Act (42 U.S.C. 264) and Section 301 of the Public Health Service Act (42 U.S.C. 241).

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondent	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hours)	Total burden hours
Parents	Screening Form	300	1	5/60	25
	Acute Respiratory Infection and Influenza Surveillance Form.	300	1	15/60	75
Students	Biospecimen collection	300	1	5/60	25
Household members	Household Study Form Part 1 (Day 0).	720	1	10/60	120
	Household Study Form Part 2 (Day 7).	720	1	10/60	120
Total					365

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Centers for Disease Control and Prevention.

[FR Doc. 2017–08492 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day–17–17ADS; Docket No. CDC–2017–0045]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing efforts to reduce public burden and maximize the utility of government information, 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. This notice invites comment on the proposed information collection project titled ''Awardee Lead Profile Assessment (ALPA).'' The information collection project includes a questionnaire to collect information to identify jurisdictional legal frameworks governing funded childhood lead poisoning prevention programs in the United States, and strategies for implementing childhood lead poisoning prevention activities in the United States.

DATES: Written comments must be received on or before June 26, 2017.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2017–0045 by any of the following methods:

- *Federal eRulemaking Portal: Regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Leroy A. Richardson, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *Regulations.gov*, including any personal information provided. For access to the docket to read background documents or comments received, go to *Regulations.gov*.

Please note: All public comment should be submitted through the Federal eRulemaking portal (*Regulations.gov*) or by U.S. mail to the address listed above.

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Leroy A. Richardson, of Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE., MS–D74, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov.*

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

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 of the proposed collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; to develop, acquire, install and utilize technology and systems for the purpose of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; to train personnel and to be able to respond to a collection of information, to search data sources, to complete and review the collection of information; and to transmit or otherwise disclose the information.

Proposed Project

Awardee Lead Profile Assessment (ALPA)—NEW—National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

The Centers for Disease Control and Prevention (CDC) is requesting a three-year clearance for a new information collection project titled ''Awardee Lead Profile Assessment (ALPA).'' The goal of this project is to build on an existing childhood lead poisoning prevention program. CDC will obtain program management information from participating state and local governments that are awardees under the CDC Healthy Homes and Lead Poisoning Prevention Program (HHLPPP) FY17 Funding Opportunity Announcement (FOA No. CDC–RFA–EH17–1701PPHF17). This annual information collection will be used: (1) To identify common characteristics of funded childhood lead poisoning prevention programs; and (2) inform guidance and resource development in support of the ultimate program goal, which is blood lead elimination in children.

The dissemination of these ALPA results will ensure that both funded and non-funded jurisdictions are able to: (1) Identify policies and other factors that support or hinder childhood lead poisoning prevention efforts; (2) understand what strategies are being used by funded public health agencies to implement childhood lead poisoning prevention activities; and (3) use this knowledge to develop and apply similar strategies to support the national agenda to eliminate childhood lead poisoning.

This program management information will be collected annually from 45 awardees, using two data collection modes. We anticipate that the majority, 40 respondents, will choose the Web survey due to the ease of use, and that 5 respondents will choose the MSWord format mode.

We estimate the time burden to be the same, 7 minutes per response, regardless of data collection mode (Web survey or Word format). This estimate is based on a 2015 survey among 35 former awardees titled ''Baseline Profile of State and Local Healthy Homes and Lead Poisoning Prevention Programs (PROF–LEAD),'' approved under the generic clearance for ''Information Collections to Advance State, Tribal, Local, and Territorial (STLT) Governmental Health'' (OMB Control No. 0920–0879; expiration date 03/31/2018). Due to its success, the PROF–

LEAD questionnaire is now proposed as an annual reporting requirement for awardees under the FY17 FOA, as the ALPA questionnaire.

There is no cost to the respondents other than their time. The total annual time burden requested is six hours.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondent	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hours)	Total burden hours
State And Local Governments (or their bona fide fiscal agents).	Awardee Lead Profile Assessment (ALPA) Questionnaire—Web survey.	40	1	7/60	5
	ALPA Questionnaire—Word format	5	1	7/60	1
Total					6

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Centers for Disease Control and Prevention.

[FR Doc. 2017–08539 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day–17–1074]

Agency Forms Undergoing Paperwork Reduction Act Review

The Centers for Disease Control and Prevention (CDC) has submitted 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 notice for the proposed information collection is published to obtain comments from the public and affected agencies.

Written comments and suggestions from the public and affected agencies concerning the proposed collection of information are encouraged. Your comments should address any of the following: (a) 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; (b) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) Enhance the quality, utility, and clarity of the information to be collected; (d) 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; and (e) Assess information collection costs.

To request additional information on the proposed project or to obtain a copy of the information collection plan and instruments, call (404) 639–7570 or send an email to *omb@cdc.gov.* Written comments and/or suggestions regarding the items contained in this notice should be directed to the Attention: CDC Desk Officer, Office of Management and Budget, Washington, DC 20503 or by fax to (202) 395–5806. Written comments should be received within 30 days of this notice.

Proposed Project

Colorectal Cancer Control Program (CRCCP) Monitoring Activities (OMB Control Number 0920–1074, expires 06/30/2019)—Revision—National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

CDC is requesting a revision to the approved information collection under OMB Control Number 0920–1074. CDC proposes use of a revised grantee survey instrument, as well as a revised clinic-level data collection template. The number of respondents will also decrease from 31 to 30 grantees, and the total estimated annualized burden will decrease.

Colorectal cancer (CRC) is the second leading cause of death from cancer in the United States among cancers that affect both men and women. CRC screening has been shown to reduce incidence of and death from the disease. Screening for CRC can detect disease early when treatment is more effective and prevent cancer by finding and removing precancerous polyps. Of individuals diagnosed with early stage CRC, more than 90% live five or more years. To reduce CRC morbidity, mortality, and associated costs, use of CRC screening tests must be increased among age-eligible adults with the lowest CRC screening rates.

The purpose of the Colorectal Cancer Control Program (CRCCP): Organized Approaches to Increase Colorectal Cancer Screening (CDC–RFA–DP15–1502), is to increase CRC screening rates among an applicant defined target population of persons 50–75 years of age within a partner health system serving a defined geographical area or disparate population. The CRCCP includes 30 grantees that are state governments or bona-fide agents, universities, and tribal organizations.

The CRCCP was significantly redesigned in 2015 and has two components. Under Component 1, all grantees receive funding to support partnerships with health systems to implement up to four priority evidence-based interventions (EBIs) described in the Guide to Community Preventive Services, as well as other supporting activities (SAs). Grantees must implement at least two EBIs in each partnering health system. Under Component 2, six of the 30 grantees provide direct screening and follow-up clinical services for a limited number of individuals aged 50–64 in the program's priority population who are asymptomatic, at average risk for CRC, have inadequate or no health insurance for CRC screening, and are low income.

Two forms of data collection have been implemented to assess program processes and outcomes. In Program Year 1, the annual grantee survey monitored grantee program implementation, including (1) program management, (2) implementation of the EBIs and SAs, (3) health information technology (IT), (4) partnerships, (5) data use, (6) training and technical assistance (TA), and (7) clinical service delivery (for programs receiving

Component 2 funding only). Clinic-level data collection assessed CRCCP's primary outcome of interest—CRC screening rates within partner health systems—by measuring: (1) Partner health system, clinic, and patient population characteristics, (2) reporting period (for screening rates), (3) Chart review screening rate data, (4) Electronic Health Record (EHR) screening rate, and (5) Priority evidence-based EBIs and SAs.

Based on feedback from grantees and internal subject matter experts, CDC proposes use of updated data collection instruments. Specifically, CDC plans to implement a revised CRCCP grantee survey that eliminates questions related to EBI and SA implementation as these data are more accurately reported at the clinic level. Conversely, CDC will implement a revised CRCCP clinic-level data collection template with additional data variables related to EBI and SA implementation, as well as monitoring and evaluation activities, at the clinic level.

Redesigned data elements will enable CDC to better gauge progress in meeting CRCCP program goals and monitor implementation activities, evaluate outcomes, and identify grantee technical assistance needs. In addition, data collected will inform program improvement and help identify successful activities that need to be maintained, replicated, or expanded.

OMB approval is requested for three years. The total estimated annualized burden hours have decreased from 210 to 204 hours. There are no costs to respondents other than their time.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondent	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hrs)
CRCCP Grantees	CRCCP Annual Grantee Survey	30	1	24/60
	CRCCP Clinic-level Information Collection Template.	30	12	32/60
Total				

Leroy A. Richardson,

Chief, Information Collection Review Office, Office of Scientific Integrity, Office of the Associate Director for Science, Office of the Director, Centers for Disease Control and Prevention.

[FR Doc. 2017–08490 Filed 4–26–17; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: Voluntary Acknowledgement of Paternity and Required Data Elements for Paternity Establishment Affidavits.

OMB No.: 0970–0171.

Description: Section 466(a)(5)(C) of the Social Security Act requires States to enact laws ensuring a simple civil process for voluntarily acknowledging paternity via an affidavit. The development and use of an affidavit for the voluntary acknowledgment of paternity would include the minimum requirements of the affidavit specified by the Secretary under section 452(a)(7) and give full faith and credit to such an affidavit signed in any other State according to its procedures. The State must provide that, before a mother and putative father can sign a voluntary acknowledgement of paternity, the mother and putative father must be given notice, orally and in writing of the alternatives to, the legal consequences of, and the rights (including any rights, if one parent is a minor, due to minority status) and responsibilities of acknowledging paternity. The affidavits will be used by hospitals, birth record agencies, and other entities participating in the voluntary paternity establishment program to collect information from the parents of nonmarital children.

Respondents: The parents of nonmarital children and State and Tribal IV–D agencies, hospitals, birth record agencies and other entities participating in the voluntary paternity establishment program.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents/ partner	Number of responses per respondent/ partner	Average burden hours per response	Total burden hours
Training	130,330	1	1	130,300
Paternity Acknowledgment Process	2,606,596	1	0.17	443,121
Data Elements	54	1	1	54
Data Elements	2,606,596	1	.08	208,528

Estimated Total Annual Burden Hours: 782,003

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 330 C Street SW., Washington, DC 20201. Attention Reports Clearance Officer. All requests should be identified by the title of the information collection. Email address: *infocollection@acf.hhs.gov.*

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of

having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, Email: *OIRA_SUBMISSION@OMB.EOP.GOV*, Attn: Desk Officer for the Administration for Children and Families.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 2017–08510 Filed 4–26–17; 8:45 am]

BILLING CODE 4184–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Submission for OMB Review; Comment Request

Title: State Plan Child Support Collection and Establishment of Paternity Title IV–D, OCSE–100.

OMB No.: 0970–0017.

Description: The Office of Child Support Enforcement has approved a IV–D state plan for each state. Federal regulations require states to amend their state plans only when necessary to reflect new or revised federal statutes or regulations or material change in any state laws, regulations, policies, or IV–D agency procedures. The requirement for submission of a state plan and plan amendments for the Child Support Enforcement program is found in sections 452, 454, and 466 of the Social Security Act.

Respondents: State IV–D Agencies.

ANNUAL BURDEN ESTIMATES

Instrument	Number of respondents	Number of responses per respondent	Average burden hours per response (hours)	Total burden hours
State Plan (OCSE–100)	54	5	.5	135
State Plan Transmittal (OCSE–21–U4)	54	5	.25	67.5

Estimated Total Annual Burden Hours: 202.5 hours.

Additional Information: Copies of the proposed collection may be obtained by writing to the Administration for Children and Families, Office of Planning, Research and Evaluation, 330 C Street SW., Washington, DC 20201. Attention Reports Clearance Officer. All requests should be identified by the title of the information collection. Email address: *infocollection@acf.hhs.gov.*

OMB Comment: OMB is required to make a decision concerning the collection of information between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment is best assured of having its full effect if OMB receives it within 30 days of publication. Written comments and recommendations for the proposed information collection should be sent directly to the following: Office of Management and Budget, Paperwork Reduction Project, Email: *OIRA_SUBMISSION@OMB.EOP.GOV*. Attn: Desk Officer for the Administration for Children and Families.

Robert Sargis,

Reports Clearance Officer.

[FR Doc. 2017–08506 Filed 4–26–17; 8:45 am]

BILLING CODE 4184–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Eunice Kennedy Shriver National Institute of Child Health and Human Development; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meetings.

The meetings 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; Chemical Synthesis Facility.

Date: June 20, 2017.

Time: 1:00 p.m. to 4:00 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health, 6710 B Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Sathasiva B. Kandasamy, Ph.D., Scientific Review Administrator, Division of Scientific Review, National Institute of Child Health and Human Development, 6710B Rockledge Drive, Bethesda, MD 20892, (301) 435–6680, *skandasa@mail.nih.gov.*

Name of Committee: National Institute of Child Health and Human Development Special Emphasis Panel; NICHD Member Conflicts Teleconference Review.

Date: June 20, 2017.

Time: 3:30 p.m. to 5:30 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6710B Rockledge Drive, Bethesda, MD 20817 (Telephone Conference Call).

Contact Person: Helen Huang, Ph.D., Scientific Review Officer, Division of Scientific Review, OD, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, DHHS, 6710B Rockledge Drive, Bethesda, MD 20892, 301–435–8207, *helen.huang@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: April 21, 2017.

Michelle Trout,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2017–08458 Filed 4–26–17; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Heart, Lung, and Blood Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), 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 contract proposals and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the contract proposals, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Heart, Lung, and Blood Institute Special Emphasis Panel; Defibrillation Device for MRI Procedures.

Date: May 16, 2017.

Time: 1:00 p.m. to 3:00 p.m.

Agenda: To review and evaluate contract proposals.

Place: National Institutes of Health, 6701 Rockledge Drive, Room 7200, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: Michael P. Reilly, Ph.D., Scientific Review Officer, Office of Scientific Review/DERA, National Heart, Lung, and Blood Institute, 6701 Rockledge Drive, Room 7200, Bethesda, MD 20892, 301–827–7075, *reillymp@nhlbi.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.233, National Center for Sleep Disorders Research; 93.837, Heart and Vascular Diseases Research; 93.838, Lung Diseases Research; 93.839, Blood Diseases and Resources Research, National Institutes of Health, HHS)

Dated: April 21, 2017.

Michelle Trout,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2017–08456 Filed 4–26–17; 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 and Human Development; Notice of Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the Board of Scientific Counselors, NICHD.

The meeting will be open to the public as indicated below, with the attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

The meeting will be closed to the public as indicated below in accordance with the provisions set forth in section 552b(c)(6), Title 5 U.S.C., as amended for the review, discussion, and evaluation of individual intramural programs and projects conducted by the EUNICE KENNEDY SHRIVER NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT, including consideration of personnel qualifications and performance, and the competence of individual investigators, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Board of Scientific Counselors, NICHD.

Date: June 2, 2017.

Open: 8:00 a.m. to 11:30 a.m.

Agenda: A report by the Scientific Director, NICHD, on the status of the NICHD Division of Intramural Research; talks by various intramural scientists, and current organizational structure.

Place: National Institutes of Health, Building 31A, Conference Room 2A48, 31 Center Drive, Bethesda, MD 20892.

Closed: 11:30 a.m. to 4:00 p.m.

Agenda: To review and evaluate personal qualifications and performance, and competence of individual investigators.

Place: National Institutes of Health, Building 31A, Conference Room 2A48, 31 Center Drive, Bethesda, MD 20892.

Contact Person: Constantine A. Stratakis, MD, D(med)Sci, Scientific Director, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, Building 31A, Room 2A46, 31 Center Drive, Bethesda, MD 20892, 301–594–5984, *stratakc@mail.nih.gov.*

Information is also available on the Institute's/Center's home page: *https://www.nichd.nih.gov/about/meetings/Pages/index.aspx,* where an agenda and any additional information for the meeting will be posted when available.

(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: April 21, 2017.

Michelle Trout,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2017–08457 Filed 4–26–17; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2017–0340]

Certificate of Alternative Compliance for U.S. Coast Guard National Security Cutters

AGENCY: Coast Guard, DHS.

ACTION: Notice.

SUMMARY: The Coast Guard announces that a Certificate of Alternate Compliance was issued for the U.S. Coast Guard's National Security Cutters (WMSL Class). We are issuing this notice because its publication is required by statute. Due to their unique purpose, these vessels cannot fully comply with the masthead light provisions of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS) without interfering with their special function.

FOR FURTHER INFORMATION CONTACT: For information about this notice, please call or email LCDR Matthew Walter, Commandant (CG–NAV–2), U.S. Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7418, Washington, DC 20593, telephone 202–372–1565 or email *cgnav@uscg.mil.*

SUPPLEMENTARY INFORMATION:

Background and Purpose

The United States is signatory to the International Maritime Organization's International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS), as amended. The special construction or purpose of some vessels makes them unable to comply with the light, shape, and sound signal provisions of the 72 COLREGS. Pursuant to 33 U.S.C. 1605(a), Navy and Coast Guard vessels of special construction or purpose may be issued a Certificate of Alternative Compliance (COAC) authorizing alternative requirements to the 72 COLREGS. For Coast Guard vessels, the Commandant of the U.S. Coast Guard determines whether the vessel for which the COAC is sought complies as closely as possible with 72 COLREGS, and decides whether to issue the COAC. By law, notice of COACs must be published in the **Federal Register**.

Pursuant to 33 U.S.C. 1605(d), a COAC may be issued for a class of vessels. The Commandant, U.S. Coast Guard, hereby finds and certifies that the U.S. Coast Guard's class of WMSL–750 vessels (also known as National Security Cutters) are a class of vessels of special construction or purpose, and that with respect to the horizontal position of the Forward and Aft Masthead navigational lights, it is not possible to comply fully with the requirements of the provisions enumerated in the 72 COLREGS Annex I, section 3(a), without interfering with the special function of these vessels. The Commandant, U.S. Coast Guard, further finds and certifies that the masthead lights of the National Security Cutters are in the closet possible compliance with the applicable

provisions of the 72 COLREGS and that full compliance with the 72 COLREGS would not significantly enhance the safety of the vessels' operation.

This notice is issued in accordance with 33 U.S.C. 1605(c).

Dated: April 21, 2017.

Michael D. Emerson,

Director of Marine Transportation Systems Management, U.S. Coast Guard.

[FR Doc. 2017–08528 Filed 4–26–17; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

[1651–0139]

Agency Information Collection Activities: Electronic Visa Update System

AGENCY: U.S. Customs and Border Protection (CBP), Department of Homeland Security.

ACTION: 30-Day notice and request for comments; revision of an existing collection of information.

SUMMARY: The Department of Homeland Security, U.S. Customs and Border Protection 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 information collection is published in the **Federal Register** to obtain comments from the public and affected agencies. Comments are encouraged and will be accepted (no later than May 30, 2017) to be assured of consideration.

ADDRESSES: Interested persons are invited to submit written comments on this proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to the OMB Desk Officer for Customs and Border Protection, Department of Homeland Security, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–5806.

FOR FURTHER INFORMATION CONTACT: Requests for additional information should be directed to the CBP Paperwork Reduction Act Officer, U.S. Customs and Border Protection, Office of Trade, Regulations and Rulings, Economic Impact Analysis Branch, 90 K Street NE., 10th Floor, Washington, DC 20229–1177, or via email *CBP_PRA@cbp.dhs.gov.* Please note that the contact information provided here is solely for questions regarding this notice. Individuals seeking information about other CBP programs should contact the CBP National Customer Service Center at 877–227–5511, (TTY) 1–800–877–8339, or CBP Web site at *https://www.cbp.gov/.*

SUPPLEMENTARY INFORMATION: CBP invites the general public and other Federal agencies to comment on the proposed and/or continuing information collections pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This proposed information collection was previously published in the **Federal Register** (82 FR 11237) on February 21, 2017, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10. Written comments and suggestions from the public and affected agencies should address one or more of the following four points: (1) 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; (2) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) suggestions to enhance the quality, utility, and clarity of the information to be collected; and (4) suggestions 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, *e.g.,* permitting electronic submission of responses. The comments that are submitted will be summarized and included in the request for approval. All comments will become a matter of public record.

Overview of This Information Collection

Title: Electronic Visa Update System.
OMB Number: 1651–0139.
Form Number: N/A.
Current Actions: This submission is being made to extend the expiration date with a change to the information collected as a result of adding a question about social media to EVUS. There are no changes to the burden hours.
Type of Review: Revision.
Affected Public: Individuals.
Abstract: The Electronic Visa Update System (EVUS) provides a mechanism through which visa information updates can be obtained from certain nonimmigrant aliens in advance of their travel to the United States. This provides CBP access to updated information without requiring aliens to apply for a visa more frequently. The EVUS requirements apply to nonimmigrant aliens who hold a passport issued by an identified country containing a U.S. nonimmigrant visa of a designated category. EVUS enrollment is currently limited to nonimmigrant aliens who hold unrestricted, maximum validity B–1 (business visitor), B–2 (visitor for pleasure), or combination B–1/B–2 visas, which are generally valid for 10 years, contained in a passport issued by the People's Republic of China.

EVUS provides for greater efficiencies in the screening of international travelers by allowing DHS to identify nonimmigrant aliens who may be inadmissible before they depart for the United States, thereby increasing security and reducing traveler delays upon arrival at U.S. ports of entry. EVUS aids DHS in facilitating legitimate travel while also enhancing public safety and national security.

Proposed Changes

DHS proposes to add the following question to EVUS: ''Please enter information associated with your online presence—Provider/Platform—Social media identifier.'' It will be an optional data field to request social media identifiers to be used for vetting purposes, as well as applicant contact information.

Estimated Number of Respondents: 3,595,904.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Responses: 3,595,904.

Estimated Time per Response: 25 minutes.

Estimated Total Annual Burden Hours: 1,499,492.

Dated: April 24, 2017.

Seth Renkema,

Branch Chief, Economic Impact Analysis Branch, U.S. Customs and Border Protection.

[FR Doc. 2017–08505 Filed 4–26–17; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

[Docket No. DHS–2017–0010]

National Protection and Programs Directorate, Office of Emergency Communications, SAFECOM Nationwide Survey

AGENCY: National Protection and Programs Directorate, DHS.

ACTION: 60-Day notice and request for comments; New Information Collection Request: 1670–NEW.

SUMMARY: The Department of Homeland Security (DHS), National Protection and Programs Directorate (NPPD), Office of Cybersecurity and Communications (CS&C), Office of Emergency Communications (OEC), will submit the following Information Collection Request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995.

DATES: Comments are encouraged and will be accepted until June 26, 2017. This process is conducted in accordance with 5 CFR 1320.1.

ADDRESSES: Written comments and questions about this Information Collection Request should be forwarded to DHS/NPPD/CS&C/OEC, 245 Murray Lane SW., Mail Stop 0640, Arlington, VA 20598–0640. Emailed requests should go to *SNS@hq.dhs.gov*. Written comments should reach the contact person listed no later than June 26, 2017. Comments must be identified by ''DHS–2017–0010'' and may be submitted by *one* of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov*. Follow the instructions for submitting written comments.
- *Email: SNS@hq.dhs.gov*. Please include the docket number DHS–2017–0010 in the subject line of the message.

Instructions: All submissions received must include the words ''Department of Homeland Security'' and the docket number for this action. Comments received will be posted without alteration at *http://www.regulations.gov*.

SUPPLEMENTARY INFORMATION: In 2006, Congress passed Public Law 109–295, which created the Office of Emergency Communications (OEC) headed by a Director of Emergency Communications. Responsibilities of the Director include assisting the Secretary in developing and implementing a program to support and promote the ability of emergency response providers and relevant government officials to continue to communicate in the event of natural disasters, acts of terrorism, and other man-made disasters; and ensure, accelerate, and attain interoperable emergency communications nationwide.

Title 6 U.S.C. 571(c)(4) requires the DHS Secretary through the OEC Director to conduct extensive, nationwide outreach to support and promote the ability of emergency response providers and relevant government officials to continue to communicate in the event of natural disasters, acts of terrorism, and other man-made disasters. In order to perform this statutory regulation it is important to understand the variety of technology being used today. Additionally, 6 U.S.C. 573 requires the DHS Secretary to conduct a baseline assessment of the first responder emergency communications capabilities at least every five years.

These authorities in addition to DHS's responsibilities through E.O. 13618 in the area of national security/emergency providers' communications require a renewed examination of baseline emergency communications capabilities.

The Office of Emergency Communication's SAFECOM Nationwide Survey (SNS) purpose is to gather information to assess available capabilities, identify gaps and needs for emergency response providers to effectively communicate during all types of natural or man-made hazards. In order to ascertain this information the SNS will deploy four distinctive surveys across the nation addressing emergency response entities at each level of government: Federal, State and Territorial, Tribal, and Local. The SNS is built on a foundation of core elements identified by OEC and its stakeholders as ''must haves'' in order to achieve open and secure communications operability, interoperability and continuity. These elements are interdependent critical success factors that must be addressed to plan for and implement public safety communications capability. As such, these elements are *Governance, Standard Operating Procedures, Training and Exercises, Technology, Usage and Security*. The survey will encompass questions regarding each major element in order to determine a jurisdiction's level of operability, interoperability and continuity and thus their overall emergency communications capability level. Governance questions will pertain to matters related to leadership, decision making groups, agreements, funding and strategic planning. The element of Standard Operating Procedures will focus on questions related to procedures, doctrine, and practices. Training and Exercises questions will focus on needs, scope, frequency, execution and lessons learned. The Technology element questions are centered on infrastructure, functionality, performance, and redundancy. Usage questions will address frequency of use, end user proficiency, and resource capacity. The last element, Security, will contain question on identification, protection, detection, response, and recovery.

OMB is particularly interested in comments that:

1. 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;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected; and

4. 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 submissions of responses.

Analysis

Agency: Department of Homeland Security, National Protection and Programs Directorate, Office of Cybersecurity and Communications, Office of Emergency Communications.

Title: The Department of Homeland Security, Office of Emergency Communications SAFECOM Nationwide Survey.

OMB Number: 1670–NEW.

Frequency: Once every five years.

Affected Public: Federal, state, local, and private sector emergency response personnel.

Number of Respondents: 3,002 annually.

Estimated Time per Respondent: 30 minutes.

Total Burden Hours: 1,501 annual burden hours.

Total Burden Cost (capital/startup): $0.

Total Recordkeeping Burden: $0.

Total Burden Cost (operating/maintaining): $120,831.68.

Dated: April 21, 2017.

Ryan Comber,

Acting Chief Information Officer.

[FR Doc. 2017–08468 Filed 4–26–17; 8:45 am]

BILLING CODE P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[178A2100DD/AAKC001030/A0A501010.999900 253G]

Early Revision of Agency Information Collection for the Application for Admission to Haskell Indian Nations University and to Southwestern Indian Polytechnic Institute

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of request for comments.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995, the Bureau of Indian Education (BIE) is seeking comments on the early renewal of Office of Management and Budget (OMB) approval for the collection of information for the Application for Admission to Haskell Indian Nations University (Haskell) and to Southwestern Indian Polytechnic Institute (SIPI), authorized by OMB Control Number 1076–0114. This information collection expires August 31, 2017.

DATES: Submit comments on or before June 26, 2017.

ADDRESSES: You may submit comments on the information collection to: Ms. Jacquelyn Cheek, Special Assistant to the Director, Bureau of Indian Education, 1849 C Street NW., Mailstop 3609–MIB, Washington, DC 20240; facsimile: (202) 208–3312; or email to: *Jacquelyn.Cheek@bie.edu.*

FOR FURTHER INFORMATION CONTACT: Ms. Jacquelyn Cheek, phone: (202) 208–6983.

SUPPLEMENTARY INFORMATION:

I. Abstract

The BIE is requesting early renewal of OMB approval for the admission forms for Haskell and SIPI. These admission forms are used in determining program eligibility of American Indian and Alaska Native students for educational services. These forms are utilized pursuant to the Blood Quantum Act, Public Law 99–228; the Snyder Act, Chapter 115, Public Law 67–85; and, the Indian Appropriations of the 48th Congress, Chapter 180, page 91, For Support of Schools, July 4, 1884. The application was revised following input from students on the form. Haskell reduced the length of the application form to a page and a half. SIPI's application did not change.

II. Request for Comments

The BIE requests your comments on this collection concerning: (a) The necessity of this information collection 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 (hours and cost) of the collection of information, including the validity of the methodology and assumptions used; (c) Ways we could enhance the quality, utility, and clarity of the information to be collected; and (d) Ways we could minimize the burden of the collection of the information on the respondents.

Please note that an agency may not conduct or sponsor, and an individual need not respond to, a collection of information unless it displays a valid OMB Control Number.

It is our policy to make all comments available to the public for review at the location listed in the **ADDRESSES** section. Before including your address, phone number, email 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.

III. Data

OMB Control Number: 1076–0114.

Title: Application for Admission to Haskell Indian Nations University and to Southwestern Indian Polytechnic Institute.

Brief Description of Collection: Submission of these eligibility application forms is mandatory in determining a student's eligibility for educational services. The information is collected on two forms: Application for Admission to Haskell form and SIPI form.

Type of Review: Early revision of currently approved collection.

Respondents: Students.

Number of Respondents: 4,000 per year, on average.

Frequency of Response: Once per year for Haskell; each trimester for SIPI.

Estimated Time per Response: 30 minutes per Haskell application; 30 minutes per SIPI application.

Obligation to Respond: Response required to obtain a benefit.

Estimated Total Annual Hour Burden: 2,000 hours.

Estimated Total Annual Non-Hour Dollar Cost: $12,360.

Authority

These forms are utilized pursuant to the Blood Quantum Act, Public Law 99–228; the Snyder Act, Chapter 115, Public Law 67–85; and, the Indian Appropriations of the 48th Congress, Chapter 180, page 91, For Support of Schools, July 4, 1884. The authority for this action is the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 *et seq.*

Elizabeth K. Appel,

Director, Office of Regulatory Affairs and Collaborative Action—Indian Affairs.

[FR Doc. 2017–08531 Filed 4–26–17; 8:45 am]

BILLING CODE 4337–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLCAN01000 L10200000.XZ0000 17X LXSIOVHD0000]

Northern California District Resource Advisory Council; Postponement of Meeting

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The April 2017 Northern California District Resource Advisory Council meeting has been postponed.

DATES: The meeting was scheduled for April 26, 2017, in Redding, California, and will be rescheduled at a later date. We will publish a future notice with new meeting date and location.

FOR FURTHER INFORMATION CONTACT: BLM Northern California District Manager, Alan Bittner, (530) 224–2160; or by email at *abittner@blm.gov.*

SUPPLEMENTARY INFORMATION: The 15-member council advises the Secretary of the Interior, through the BLM, on a variety of planning and management issues associated with public land management on BLM-administered lands in northern California and northwest Nevada.

Additional information is available in the meeting notice published on April 18, 2017 (82 FR 18308).

Authority: 5 U.S.C. Appendix 2.

Patrick Wilkinson,

Acting Assistant Director, Communications.

[FR Doc. 2017–08665 Filed 4–26–17; 8:45 am]

BILLING CODE 4310–40–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 701–TA–567–569 and 731–TA–1343–1345 (Preliminary)]

Silicon Metal from Australia, Brazil, Kazakhstan, and Norway

Determinations

On the basis of the record [1] developed in the subject investigations, the United States International Trade Commission (''Commission'') determines, pursuant to the Tariff Act of 1930 (''the Act''), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of silicon metal from Australia, Brazil, and Norway, provided for in subheadings 2804.69.10 and 2804.69.50 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold at less-than-fair-value (''LTFV'') and imports of silicon metal alleged to be subsidized by the governments of Australia, Brazil, and Kazakhstan.

Commencement of Final Phase Investigations

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the **Federal Register** as provided in section 207.21 of the Commission's rules, upon notice from the Department of Commerce (''Commerce'') of affirmative preliminary determinations in the investigations under sections 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under sections 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

Background

On March 8, 2017, Globe Specialty Metals, Inc., Beverly, Ohio filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of silicon metal from Australia, Brazil, and Kazakhstan, and LTFV imports of silicon metal from Australia, Brazil, and Norway. Accordingly, effective March 8, 2017, the Commission, pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)), instituted countervailing duty investigation Nos. 701–TA–567–569 and antidumping duty investigation Nos. 731–TA–1343–1345 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** of March 14, 2017 (82 FR 16353). The conference was held in Washington, DC, on March 29, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission made these determinations pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)). It completed and filed its determinations in these investigations on April 24, 2017. The views of the Commission are contained in USITC Publication 4685 (May 2017), entitled *Silicon Metal from Australia, Brazil, Kazakhstan, and Norway: Investigation Nos. 701–TA–567–569 and 731–TA–1343–1345 (Preliminary).*

By order of the Commission.

Issued: April 24, 2017.

William R. Bishop,

Supervisory Hearings and Information Officer.

[FR Doc. 2017–08535 Filed 4–26–17; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

[Docket No. 17–4]

Robert Clark Maiocco, M.D.; Decision and Order

On September 22, 2016, the Assistant Administrator, Diversion Control Division, Drug Enforcement Administration, issued an Order to Show Cause to Robert Clark Maiocco, M.D. (Respondent), of Denver, Colorado. The Show Cause Order proposed the revocation of Respondent's DEA Certificate of Registration No. AM2281688, and the denial of any applications to renew or modify his registration, as well as the denial of ''any applications for any other DEA registrations,'' on the ground that he has ''no state authority to handle controlled substances.'' Show Cause Order, at 1 (citing 21 U.S.C. 824(a)(3) and 823(a)(3)).[1]

As to the Agency's jurisdiction, the Show Cause Order alleged that Respondent is registered ''as a practitioner in Schedules II through V'' under the above registration, at the location of ''Colorado Lipidology Associates, 633 17th Street, Ste. 100, Denver, Co.'' *Id.* The Order alleges that Respondent's registration does not expire until January 31, 2019. *Id.*

As to the substantive ground for the proceeding, the Show Cause Order alleged that ''[o]n July 19, 2016, the Colorado Medical Board suspended [Respondent's] medical license.'' *Id.* at 2. The Show Cause Order then alleged that Respondent is ''currently without authority to practice medicine or handle controlled substances in the State of Colorado, the [S]tate in which [he is] registered with'' DEA, and that as a consequence, his registration is subject to revocation.[2]

Following service of the Show Cause Order, Respondent requested a hearing. The matter was placed on the docket of the Office of Administrative Law Judges and assigned to ALJ Charles Wm. Dorman who issued an order directing the Government to file evidence supporting the allegation and ''any motion for summary disposition'' by 2 p.m. on November 7, 2016. Briefing Schedule For Lack Of State Authority Allegations (Briefing Schedule), at 1. In

[1] As for the citation to 21 U.S.C. 823(a)(3), this provision is a public interest factor applicable to applicants for registration to manufacture schedule I and II controlled substances, which directs the Agency to consider the ''promotion of technical advances in the art of manufacturing these substances and the development of new substances.'' This provision is not applicable to this case, which involves a practitioner registered under section 823(f).

While the Government also proposes the denial of ''any applications for any other DEA registrations,'' because this proceeding is based solely on Respondent's lack of state authority in Colorado, the Agency's authority to deny an application is limited to an application for a registration in Colorado.

[2] The Show Cause Order also notified Respondent of his right to request a hearing or to submit a written statement in lieu of a hearing, the procedure for electing either option, and the consequence of failing to elect either option. Show Cause Order, at 2. Also, the Show Cause Order notified Respondent of his right to submit a Corrective Action Plan. 21 U.S.C. 824(c)(2)(C).

the same order, the ALJ directed Respondent to file any reply to the Government's motion by 2 p.m. on November 18, 2016. Noting that in his hearing request, Respondent had sought to hold the proceeding in abeyance ''pending the resolution of the Colorado [Board] matter either via a negotiated disposition or a final agency order following the hearing . . . set for June 26–30, 2017,'' Resp. Hrng. Req., at 2; the ALJ ordered that ''if the Respondent wishes to formally request a continuance in this case, he must do so in a written motion for continuance.'' Briefing Schedule, at 1.

On November 3, 2016, Respondent moved for a continuance of all proceedings in the matter until and including January 3, 2017. Resp.'s Mot. for Continuance, at 1. As grounds for the continuance, Respondent argued that the suspension of his state license was not a final agency action, that the state administrative case was currently being litigated, that the parties were engaged in active negotiations to resolve the matter ''via a stipulated disposition that would allow [him] to return to the active practice of medicine,'' and that ''such a negotiated disposition may be reached within the next 45 to 60 days.'' *Id.* at 2. Upon receipt of the motion, the ALJ ordered the Government to file a response by 2 p.m. on November 10, 2016; he also extended the deadline for the Government to file its summary disposition motion until November 18, 2016 and for Respondent to file his reply until November 30, 2016. Order for Government's Response to Respondent's Motion to Stay Proceedings, at 1.

On November 10, 2016, the Government filed a pleading which combined its Opposition to Respondent's Motion for Continuance and its Motion for Summary Disposition. Gov.'s Opp. to Resp.'s Mot. to Stay Proceedings and Gov.'s Mot. for Summ. Disp. (hereinafter, Mot. for Summ. Disp.), at 1. With respect to Respondent's stay motion, the Government suggested that Respondent's statements regarding the timing of a negotiated resolution of the state matter was speculative. *Id.* at 4. The Government then cited Agency precedent to argue that ''even if the period of suspension is temporary or if there is the potential that Respondent's state controlled substance privileges will be reinstated, summary disposition is warranted because 'revocation is also appropriate when a state license has been suspended, but with the possibility of future reinstatement.' '' *Id.* (quoting *Roger A. Rodriguez,* 70 FR 33206, 33207 (2005) (other citations omitted)). The Government thus maintained that Respondent's Motion for Continuance should be denied. *Id.*

As for the Government's Motion for Summary Disposition, it argued that based on the Order of Suspension issued to Respondent by the Colorado Medical Board, he does not have ''authority to prescribe, administer, or dispense controlled substances in the State of Colorado.'' Mot. for Summ. Disp., at 3. The Government argued that there is no dispute as to this material fact, *id.* at 2, and that ''[a]bsent authority by the State of Colorado to dispense controlled substances, Respondent is not authorized to possess a DEA registration in that state.'' *Id.* at 3 (citing 21 U.S.C. 802(21), 823(f), 824(a)(3), and *Layfe Robert Anthony,* 67 FR 35582 (2002)). The Government further argued that ''DEA does not have statutory authority to maintain a registration if the registrant is without state authority to handle controlled substances,'' and that therefore, Respondent's registration should be revoked. *Id.* (citation omitted).

On November 14, 2016, the ALJ denied Respondent's Motion for Continuance. Order Denying the Respondent's Motion for Continuance, at 1. The ALJ's explained that ''[i]t is settled DEA precedent 'that the existence of other proceedings in which Respondent is involved is not a basis upon which to justify a stay of DEA administrative enforcement proceedings.'' *Id.* (quoting *James Alvin Chaney,* 80 FR 57391, 57393 (2015)).

On November 30, 2016, Respondent submitted a pleading captioned: ''Respondent's Motion For Extension Of Time In Which To Submit His Response To The Government's Motion for Summary Disposition And, In The Alternative, His Response To The Government's Motion For Summary Disposition'' (hereinafter, Extension Mot.). Therein, Respondent represented that he had ''submitted a proposed Stipulation and Final Agency Order to'' the Colorado Board, ''which, if agreed to by the [Board], would result in the lifting of the suspension and the restoration of'' his controlled substance dispensing authority in Colorado. Extension Mot., at 1–2. Respondent further represented that the proposed Stipulation was to be considered by the Board at its December 15, 2016 meeting and expressed his optimism that the Board would accept the Stipulation. *Id.* at 2. Further noting that the Board's decision would be dispositive of this matter either way, Respondent sought an extension of the time until December 20, 2016 to file his response to the Government's pending Motion for Summary Disposition. *Id.*

Citing ''the interest of administrative/judicial economy,'' the ALJ granted Respondent's motion and ordered Respondent to file his evidence of reinstatement and his Response to the Motion for Summary Disposition by December 20, 2016. Order Granting Respondent's Motion for Extension in Which to Submit His Response to the Government's Mot. for Summary Disposition, at 2. On December 20, 2016, Respondent filed his Response and a Status Report. Response to Gov. Mot. for Summ. Disp. and Status Rep., at 1. Therein, Respondent advised that ''the parties in [the Board's proceeding] were unable to reach a resolution and [that] the matter will proceed to a hearing'' scheduled for June 26 through June 30, 2017. *Id.* Respondent further acknowledged that his medical license had not been reinstated. *Id.*

The same day, the ALJ granted the Government's Motion. The ALJ noted that ''[t]o maintain a DEA registration, a practitioner must be currently authorized to handle controlled substances in the jurisdiction in which the practitioner is registered.'' R.D. at 3 (citing 21 U.S.C. 802(21), 823(f)). Finding that there was no dispute over the material fact that ''Respondent lacks state authorization to handle controlled substances in Colorado,'' the State in which he is registered with DEA, the ALJ granted the Government's Motion and recommended that Respondent's registration be revoked. *Id.* at 3–4.

Neither party filed exceptions to the Recommended Decision. Thereafter, the ALJ forwarded the record to my Office for final agency action. Having considered the record, I adopt the ALJ's factual finding, legal conclusions and recommended order. I make the following factual findings.

Findings of Fact

Pursuant to 5 U.S.C. 556(e), I take official notice of Respondent's registration record with the Agency. According to the record, Respondent is the holder of Certificate of Registration No. AM2281688, pursuant to which he is authorized to dispense controlled substances in schedules II through V as practitioner, at the registered address of Colorado Lipidology Associates, 633 17th Street, Suite 100, Denver, Colorado. Respondent's registration does not expire until January 31, 2019.[3] Accordingly, I find that Respondent has

[3] Respondent may refute these findings (as well as any other finding based on my taking of official notice) by filing a properly supported motion for reconsideration no later than 10 business days from the date of this Order.

an active registration and that the Agency has jurisdiction.[4]

Respondent is also the holder of license number DR–36651, pursuant to which he is authorized to practice medicine as a physician by the Medical Board of Colorado. Mot. for Summ. Disp., Ex. 1, at 1. However, effective on July 19, 2016, the Board suspended Respondent's medical license ''pending proceedings for suspension or revocation.'' *Id.* at 2. According to the online records of the Colorado Division of Professions and Occupations, Respondent's suspension remains in effect as of the date of this Decision and Order. *See* 5 U.S.C. 556(e).

Discussion

Pursuant to 21 U.S.C. 824(a)(3), the Attorney General is authorized to suspend or revoke a registration issued under section 823 of the Controlled Substances Act (CSA), ''upon a finding that the registrant . . . has had his State license . . . suspended [or] revoked . . . by competent State authority and is no longer authorized by State law to engage in the . . . dispensing of controlled substances.'' Moreover, DEA has long held that the possession of authority to dispense controlled substances under the laws of the State in which a practitioner engages in professional practice is a fundamental condition for obtaining and maintaining a practitioner's registration. *See, e.g., James L. Hooper,* 76 FR 71371 (2011), *pet. for rev. denied,* 481 Fed. Appx. 826 (4th Cir. 2012); *see also Frederick Marsh Blanton,* 43 FR 27616 (1978) (''State authorization to dispense or otherwise handle controlled substances is a prerequisite to the issuance and maintenance of a Federal controlled substances registration.'').

This rule derives from the text of two provisions of the CSA. First, Congress defined ''the term 'practitioner' [to] mean[] a . . . physician . . . or other person licensed, registered or otherwise permitted, by . . . the jurisdiction in which he practices . . . to distribute, dispense, [or] administer . . . a controlled substance in the course of professional practice.'' 21 U.S.C. 802(21). Second, in setting the requirements for obtaining a practitioner's registration, Congress directed that ''[t]he Attorney General shall register practitioners . . . if the applicant is authorized to dispense . . . controlled substances under the laws of the State in which he practices.'' 21 U.S.C. 823(f).

Because ''the controlling question'' in a proceeding brought under 21 U.S.C. 824(a)(3) is whether the holder of a DEA registration ''is currently authorized to handle controlled substances in the [S]tate,'' *Hooper,* 76 FR at 71371 (quoting *Anne Lazar Thorn,* 62 FR 12847, 12848 (1997)), the Agency has also long held that revocation is warranted even where a practitioner has lost his state authority by virtue of the State's use of summary process and the State has yet to provide a hearing to challenge the suspension. *Bourne Pharmacy,* 72 FR 18273, 18274 (2007); *Wingfield Drugs,* 52 FR 27070, 27071 (1987). Thus, it is of no consequence that the Colorado Medical Board has employed summary process in suspending Registrant's state license and that Respondent may prevail at the hearing schedule for late June.

Here, there is no dispute over the material fact that Respondent is no longer currently authorized to dispense controlled substances in Colorado, the State in which he is registered. Accordingly, I adopt the ALJ's recommendation that Respondent's registration be revoked.

Order

Pursuant to the authority vested in me by 21 U.S.C. 824(a), as well as 28 CFR 0.100(b), I order that DEA Certificate of Registration AM2281688, issued to Robert Clark Maiocco, M.D., be, and it hereby is, revoked. Pursuant to the authority vested in me by 21 U.S.C. 823(f), I further order that any pending application of Robert C. Maiocco, M.D., to renew or modify his registration, be, and it hereby is, denied. This Order is effective immediately.[5]

Dated: April 18, 2017.

Chuck Rosenberg,

Acting Administrator.

[FR Doc. 2017–08450 Filed 4–26–17; 8:45 am]

BILLING CODE 4410–09–P

[4] I note that the Government did not submit any evidence regarding the status of Respondent's registration with its Motion for Summary Disposition. DEA's regulations do not require responsive pleading to the allegations of a Show Cause Order. Thus, the failure of a respondent to refute an allegation in his hearing request does not constitute an admission of the allegation and the Government maintains the burden of providing evidence establishing the Agency's jurisdiction as part of its Motion. The Agency has also noted in several decisions that even in those matters which are adjudicated on summary disposition, the ALJ is obligated to make findings as to the Agency's jurisdiction. *See James Alvin Chaney,* 80 FR 57391, 57391 n.1 (2015); *Sharad C. Patel,* 80 FR 28693, 28694 n.3 (2015).

[5] For the same reasons that led the Colorado Board to summarily suspend Registrant's medical license, I find that the public interest necessitates that this Order be effective immediately. 21 CFR 1316.67.

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

David D. Moon, D.O.; Decision and Order

On December 8, 2015, the Deputy Assistant Administrator, Office of Diversion Control, Drug Enforcement Administration (hereinafter, DEA or Government), issued an Order to Show Cause to David D. Moon, D.O. (hereinafter, Registrant), the holder of Certificates of Registration Nos. M9879024, in Tulsa, Oklahoma, and BM2782692, in Las Vegas, Nevada, authorizing him to prescribe controlled substances in Schedules II through V.[1] GX 4. The Show Cause Order proposed the revocation of his Certificates of Registration and the denial of any pending application for renewal or modification of Registrant's registrations on the grounds that: (1) Registrant does not have authority to dispense controlled substances in the States in which he is registered and (2) he has committed acts which render his registrations ''inconsistent with the public interest.'' [2] *Id.* at 1 (citing 21 U.S.C. 824(a)(3) and (4)).

As the jurisdictional basis for the proceeding, the Show Cause Order alleged that both of Registrant's registrations expire on January 31, 2018. *Id.*

As the substantive grounds for the proceeding, the Show Cause Order alleged that on June 18, 2015, the Oklahoma State Board of Osteopathic Examiners revoked his Oklahoma osteopathic license, and that on August 11, 2015, the Nevada State Board of Osteopathic Medicine revoked his Nevada osteopathic license, which resulted in the status of his Nevada State Board of Pharmacy license becoming ''inactive.'' *Id.* at 2. Thus, due to the actions of the two Boards, the Registrant is without authority to handle controlled substances in the States in which he is registered with DEA.

The Show Cause Order alleged that on April 17, 2013, Registrant was arrested at McCarran International Airport while proceeding through a Transportation Security Administration checkpoint. *Id.* It further alleged that law enforcement officers found in his carry-on baggage drugs in pill bottles labeled for other people, drugs in unlabeled pill bottles, and loose drugs. *Id.* Based on the airport

[1] The Registrant is also known in the Government's records as ''David DeWayne Moon.'' Government Exhibit (hereinafter, GX) 13 and 14.

[2] The Show Cause Order also proposed the denial of any applications by Registrant for any other DEA registrations.

arrest, the Show Cause Order alleged that the Registrant possessed controlled substances with the intent to redistribute them to individuals for whom they were not originally dispensed, in violation of 21 U.S.C. 829(a) and (b), 21 U.S.C. 841(a)(1), 21 U.S.C. 842(a), 21 U.S.C. 843(a)(3), 21 U.S.C. 844(a), 21 U.S.C. 844a(a), and Nev. Rev. Stat. §§ 453–337–.338. *Id.* at 4. The Show Cause Order also alleged, based on the airport arrest, that Registrant possessed prescription bottles without a label or with an unreadable or illegible label in violation of 21 U.S.C. 825(a) and 21 U.S.C. 842(a). *Id.*

Based on a subsequent Government investigation and the execution of an Administrative Inspection Warrant (hereinafter, AIW), the Show Cause Order alleged that Registrant accepted controlled substances from non-DEA registered sources (patients) and redistributed those illicitly obtained controlled substances to other patients in violation of 21 U.S.C. 844(a) and 21 U.S.C. 841(a)(1), respectively. *Id.* Based on the execution of the AIW, the Show Cause Order also alleged that Response could not produce 32 controlled substance invoices in violation of 21 U.S.C. 842(a)(5) and 21 CFR 1304.21(a). *Id.* The Show Cause Order also alleged, based on the AIW, that Registrant failed to take a biennial inventory of controlled substances stored at one of his registered locations in violation of 21 U.S.C. 827(a) and (b) and 21 CFR 1304.11(c). *Id.* Also pursuant to the AIW, the Show Cause Order alleged that Registrant had significant shortages of controlled substances at his registered address in Tulsa, Oklahoma and was missing purchase records and that Registrant failed to maintain accurate and complete records and to account for controlled substances in violation of 21 U.S.C. 827(a)(3), 21 U.S.C. 842(a)(5), 21 CFR 1304.03, 21 CFR 1304.04, and 21 CFR 1304.21. *Id.* at 4–5.

Based on another Government investigation, the Show Cause Order alleged that Registrant issued at least 55 controlled substance prescriptions in Nevada under a registration which listed his registered address in Oklahoma in violation of 21 U.S.C. 822(e) and 21 CFR 1301.12(a) and (b)(3). *Id.* at 5.

The Show Cause Order also notified Registrant of his right to request a hearing on the allegations or to submit a written statement while waiving his right to a hearing, the procedure for electing each option, and the consequence for failing to elect either option. *Id.* at 5–6 (citing 21 CFR 1301.43).

Adequacy of Service and Waiver

According to the ''Affidavit of Service of Order to Show Cause'' submitted by a Diversion Investigator (hereinafter, DI) assigned to the DEA Tulsa Resident Office, on January 7, 2016, ten separate copies of the Show Cause Order were sent to Registrant by certified mail, first-class mail, and electronic mail to his registered addresses, as well as his last-known home and electronic mail addresses. GX 5. Specifically, the DI stated that the Government served the Show Cause Order on Registrant (1) by certified mail, return receipt requested addressed to Registrant's registered address at 11445 East 20th Street, Tulsa, Oklahoma 74128; (2) by regular first-class U.S. mail addressed to Registrant's registered address at 11445 East 20th Street, Tulsa, Oklahoma 74128; (3) by certified mail, return receipt requested addressed to Registrant's registered address at 241 N. Buffalo Drive, Bldg. 1, Las Vegas, Nevada 89145; (4) by regular first-class U.S. mail addressed to Registrant's registered address at 241 N. Buffalo Drive, Bldg. 1, Las Vegas, Nevada 89145; (5) by certified mail, return receipt requested addressed to Registrant's last known home address in Oklahoma at 2136 East 25th Street, Tulsa 74114; (6) by regular first-class U.S. mail addressed to Registrant's last known home address in Oklahoma at 2136 East 25th Street, Tulsa 74114; (7) by certified mail, return receipt requested addressed to Registrant's last known home address in Nevada at 2814 Soft Horizon Way, Las Vegas 89135; (8) by regular first-class U.S. mail addressed to Registrant's last known home address in Nevada at 2814 Soft Horizon Way, Las Vegas 89135; (9) by electronic mail at the email address that appears in DEA's registration database for Registrant's Tulsa registered location; and (10) by electronic mail at the email address that appears in DEA's registration database for Registrant's Las Vegas registered location.[3] *Id.* at 1–2.

According to the ''Supplemental Affidavit of Service of Order to Show Cause'' (hereinafter, Supplemental Affidavit) submitted by the Tulsa Resident Office DI, the certified mail, return receipt and regular first-class mailings addressed to Registrant's registered address in Tulsa, Oklahoma were returned with the notation ''return to sender, vacant.'' GX 6, at 1. The Supplemental Affidavit stated that the mailings addressed to Registrant's registered address in Las Vegas and his last known home address in Oklahoma were not returned and the Government did not receive the certified return receipt green cards for those mailings sent certified mail, return receipt. *Id.* at 2. The Supplemental Affidavit stated that the regular first-class mailing addressed to Registrant's last known home address in Las Vegas was not returned. *Id.* at 3. The Supplemental Affidavit stated that the certified mail, return receipt mailing addressed to Registrant's last known home address in Las Vegas was returned with the notation ''unclaimed.'' *Id.* at 2. According to the Supplemental Affidavit, the electronic mailings did not generate any error message that they were not sent successfully or any notification that they were undeliverable. *Id.* at 3.

I find that the Government's service of the Show Cause Order on Registrant was legally sufficient. According to the Supreme Court, ''due process does not require actual notice.''[4] *Jones* v. *Flowers,* 547 U.S. 220, 225 (2006) (citing *Dusenbery* v. *United States,* 534 U.S. 161, 170 (2002)). Instead, the Court has repeatedly stated that, ''due process requires the government to provide 'notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and afford them an opportunity to present their objections.' '' *Jones* v. *Flowers, supra,* 547 U.S. at 226 (citing *Mullane* v. *Central Hanover Bank & Trust Co.,* 339 U.S. 306, 314 (1950)). Moreover, ''the Due Process Clause does not require . . . heroic efforts by the Government'' to find Registrant. *Dusenbery, supra.*

Here, the Government mailed the Show Cause Order by certified mail and by regular first-class mail to Registrant's addresses of record and last-known home addresses. The Government also emailed the Order to Show Cause to the email addresses which Registrant had provided to the Government. I find therefore that the Government's efforts were reasonably calculated under all the circumstances to apprise Registrant of the Order to Show Cause and to afford him an opportunity to present his objections.

On November 4, 2016, the Government submitted a Request for Final Agency Action (hereinafter,

[3] In *Mikhayl Soliman,* 81 FR 47826 (2016), I acknowledged that service by email has its limitations. *See Rio Properties, Inc.* v. *Rio Int'l Interlink,* 284 F.3d 1007, 1017–18 (9th Cir. 2002). Here, the Government employed multiple means to serve Registrant and, as in *Soliman,* used the email address Registrant had previously provided it and did not receive either an error or an undeliverable message.

[4] Nevertheless, I note that only three of the Government's ten attempts to provide notice were clearly ineffective; the other seven may very well have been effective.

RFAA) and an evidentiary record to support its proposed action. On March 21, 2017, it updated its RFAA representing that ''because Registrant has not requested a hearing within 30 days of any receipt of the . . . [Order to Show Cause] and has not otherwise corresponded or communicated with DEA regarding the . . . [Order to Show Cause], including the filing of any written statement in lieu of a hearing, he has waived his right to a hearing.'' *Id.* at 4.

Based on the Government's representations and my review of the record, I find that more than 30 days have now passed since the date on which Registrant was served with the Show Cause Order and neither Registrant, nor anyone purporting to represent him, has requested a hearing or submitted a written statement while waiving his right to a hearing. Accordingly, I find that Registrant has waived his right to a hearing and his right to submit a written statement. 21 CFR 1301.43(d). I therefore issue this Decision and Order based on the record submitted by the Government. 21 CFR 1301.43(e).

Findings of Fact

Registrant's DEA Registrations

Registrant currently holds DEA practitioner registrations BM9879024 and BM2782692, pursuant to which he is authorized to dispense controlled substances in Schedules II through V. GX 13 and 14. These registrations do not expire until January 31, 2018. *Id.*

DEA practitioner registration BM9879024 is assigned to Registrant at 11445 East 20th Street, Tulsa, OK 74128. GX 14, at 1. DEA practitioner registration BM2782692 is assigned to Registrant at ''Accelerated Rehab & Pain Ctr, 241 N. Buffalo Drive, Bldg. 1, Las Vegas, NV 89145.'' GX 13, at 1. However, from August 11, 2014 until December 15, 2014, the address associated with Registrant's BM2782692 registration was 11445 East 20th Street, Tulsa, OK 74128. *Id.* On December 15, 2014, Registrant changed the address associated with registration number BM2782692 to 241 N. Buffalo Drive, Bldg. 1, Las Vegas, NV 89145. *Id.*

The Status of Registrant's State Licenses

By Order dated June 18, 2015, the Oklahoma State Board of Osteopathic Examiners revoked Registrant's license number 2965 to practice osteopathic medicine in the State of Oklahoma. GX 7.

Effective August 11, 2015, the Nevada State Board of Osteopathic Medicine revoked Registrant's license number 705 to practice osteopathic medicine in the State of Nevada. GX 8, at 4. Also, the status of Registrant's Nevada State Board of Pharmacy license number CS07559 is ''revoked by other agency.'' GX 9.[5]

Arrest of Registrant

On April 17, 2013, Registrant was arrested as he attempted to pass through a McCarran International Airport Transportation Security Administration checkpoint with an unregistered firearm. GX 10, at 2–3. Law enforcement officers found a large quantity of pills in Registrant's carry-on bag along with the firearm. *Id.* According to the Las Vegas Metropolitan Police Department Arrest Report (hereinafter, Arrest Report), Registrant was ''arrested for possession of a controlled substance with intent to sell/distribute schedule three, possession of a controlled substance with intent to sell/distribute schedule four, possession of an unregistered firearm, and possession of hypodermic devices.'' *Id.* at 7.

According to the Arrest Report, Registrant possessed controlled substances with the intent to redistribute them to individuals for whom they were not originally dispensed. *Id.* at 4–7. The Arrest Report contained a list of pills seized from Registrant at the time of his arrest. *Id.* at 4–5. Other than stating that the author of the Arrest Report, ''Detective Shulke (phonetic), and Drug Enforcement Administration Special Agent C. Johnson conducted an inventory of the pharmaceutical products located in Moon's (phonetic) possession,'' the Arrest Report did not include factual support for the officers' conclusions that the seized pills were the controlled substances the Arrest Report stated them to be. *Id.* at 4. It did not, for example, state that the officers submitted the seized pills for lab testing or analyzed them using a resource that identified them based on size, shape, color, and imprint. Thus, I cannot place any weight on the statements in the Arrest Report that the seized pills were, in fact, controlled substances. The Government has produced no other evidence establishing that any of the pills seized from Registrant on the date he was arrested were controlled substances.

Further, while the Arrest Report recounted Registrant ''simply'' stating that ''some of his folks that he had previously treated were simply trying to destroy their medication, and . . . [Registrant] was willing to take possession of those medications again later to distribute to those that are indigent and in need,'' the Arrest Report never stated that Registrant admitted possessing controlled substances not prescribed to himself or intended to redistribute controlled substances to individuals for whom they were not originally dispensed.[6] *Id.* at 6.

Similarly, the record contains scant evidence regarding ''the unreadableness/illegibility of some labels on the prescription bottles and the absence of any label on other prescription bottles.'' GX 4, at 4. However, as stated above, the Arrest Report did not provide a basis for the officers' conclusions that the seized pills were controlled substances. Further, nothing else in the record established that the seized pills were controlled substances. Since the statutory sections cited in the Show Cause Order regarding these allegations only apply to controlled substances, and the record does not contain substantial evidence that the pills seized from Registrant at McCarran International Airport were, in fact, controlled substances, I cannot place any weight on the evidence in the record to support these alleged violations.''[7]

Investigations of Registrant

After Registrant's arrest, the Government undertook a multi-faceted investigation of Registrant.

According to the affidavit of a DI assigned to DEA's Tulsa Resident Office, on May 2, 2013, she and other Investigators executed an Administrative Inspection Warrant at Registrant's Oklahoma registered address. GX 12, at 1. At that time, she

[5] I take official notice that the online records of the Oklahoma State Board of Osteopathic Examiners and the Nevada State Board of Osteopathic Medicine show Registrant does not currently possess a license issued by the Oklahoma State Board of Osteopathic Examiners or the Nevada State Board of Osteopathic Medicine. Under the Administrative Procedure Act, an agency ''may take official notice of facts at any stage in a proceeding—even in the final decision.'' United States Department of Justice, Attorney General's Manual on the Administrative Procedure Act 80 (1947) (Wm. W. Gaunt & Sons, Inc., Reprint 1979).

[6] In this portion of the Arrest Report, Registrant did not admit taking possession of and redistributing controlled substances, only ''medications.'' *Id.* at 6. Also according to the Arrest Report, Registrant ''saw nothing wrong with his possession of the controlled substances.'' *Id.* at 3. However, this statement is imprecise; it could have concerned Registrant's possession of the hydrocodone tablets the Arrest Report stated were in a prescription bottle bearing Registrant's name. *Id.* at 4.

[7] While substantial evidence regarding these allegations may exist due to the Oklahoma State Board of Osteopathic Examiners Order of Probation with Conditions concerning David Moon, D.O., dated December 10, 2014 and effective December 31, 2014, the Order of Probation with Conditions was not submitted as part of the RFAA.

reviewed all pertinent documents and controlled substances records that Registrant was required to keep. *Id.* She found that Registrant failed to maintain a biennial inventory. *Id.*

According to the Tulsa DI's affidavit, she issued administrative subpoenas to five entities for a complete sales history of all of Registrant's controlled substances purchases for the previous two years. *Id.* In comparing the information received from the five administrative subpoenas with the records Registrant provided during the inspection, she identified 32 invoices for controlled substances that Registrant failed to produce during the administrative inspection of May 2, 2013. *Id.* at 2.

While the Government submitted evidence concerning other portions of its AIW investigation of Registrant, GX 11 and 12, the evidence lacked a sufficient foundation. The evidence consisted of a copy of the AIW, a portion of the affidavit of a DI who participated in the execution of the AIW, and ''a complete and accurate copy of the DEA Computation Chart'' prepared as part of the DI's accountability audit. *Id.* These materials did not, however, provide a sufficient foundation or sufficient detail concerning the procedure followed during the audit of Registrant. Thus, I cannot place any weight on this evidence.

Further, no portion of these materials addressed the allegations in the AIW portion of the Show Cause Order that Registrant accepted controlled substances from non-DEA registered sources and redistributed those illicitly obtained controlled substances to other patients. GX 4, at 4. I examined the entire record for evidence concerning these two allegations. The Arrest Report stated that Registrant possessed a ''large quantity'' of ''what appeared to be prescription medication'' that ''belonged to various family members and former patients.'' GX 10, at 3. As I stated above, however, the Arrest Report did not contain factual support that the seized pills were controlled substances. Thus, I cannot place any weight on that evidence in the Arrest Report. For the same reason, the Arrest Report evidence cannot support the AIW-related allegations that Registrant accepted controlled substances from non-DEA registered sources and redistributed those illicitly obtained controlled substances to other patients. I found no other evidence in the record that supports these two AIW-related allegations.

According to the affidavit of a Diversion Group Supervisor assigned to the DEA Las Vegas District Office, on October 30, 2014, she and other Investigators conducted a Scheduled Investigation at a SAV–ON Pharmacy in Las Vegas, Nevada. GX 15, at 1. At that time, the Investigators reviewed six randomly selected bundles of prescriptions and noticed prescriptions written by Registrant during a period when he did not have a DEA registration in the State of Nevada. *Id.* On November 3, 2014, the Investigators obtained copies of Registrant's controlled substance prescriptions filled at that SAV–ON Pharmacy in Las Vegas from August 11, 2014 through October 29, 2014. *Id.*

I examined each of prescriptions the Government obtained from the Las Vegas SAV–ON Pharmacy. Based on my review of this evidence, from August 11, 2014 through October 29, 2014, Registrant issued at least 55 controlled substance prescriptions for drugs including oxycodone (23), morphine (17), adderall (six), tapentadol (six), methadone (two), and hydrocodone (one) on prescriptions showing Registrant's name as well as ''Accelerated Rehabilitation & Pain Center'' and its Las Vegas, Nevada contact information, Registrant's Nevada license number, and DEA registration number BM2782692.

Discussion

Under Section 304 of the Controlled Substances Act (hereinafter, CSA), ''[a] registration . . . to . . . dispense a controlled substance . . . may be . . . revoked by the Attorney General upon a finding that the registrant . . . has had his State license or registration . . . revoked . . . by competent State authority and is no longer authorized by State law to engage in the . . . dispensing of controlled substances . . . .'' 21 U.S.C. 824(a)(3). Section 304 also provides that a registration may be revoked ''upon a finding that the registrant . . . has committed such acts as would render his registration under section 823 of this title inconsistent with the public interest as determined under such section.'' *Id.* § 824(a)(4).

In making the public interest determination, the CSA requires the consideration of the following factors:

(1) The recommendation of the appropriate State licensing board or professional disciplinary authority.

(2) The applicant's experience in dispensing, or conducting research with respect to controlled substances.

(3) The applicant's conviction record under Federal or State laws relating to the manufacture, distribution, or dispensing of controlled substances.

(4) Compliance with applicable State, Federal, or local laws relating to controlled substances.

(5) Such other conduct which may threaten the public health and safety.

Id. § 823(f)(1)–(5).

''[T]hese factors are . . . considered in the disjunctive.'' *Robert A. Leslie, M.D.,* 68 FR 15227, 15230 (2003). It is well settled that I ''may rely on any one or a combination of factors and may give each factor the weight [I] deem[ ] appropriate in determining whether'' to revoke a registration. *Id.; see also MacKay* v. *Drug Enforcement Admin.,* 664 F.3d 808, 816 (10th Cir. 2011); *Volkman* v. *DEA,* 567 F.3d 215, 222 (6th Cir. 2009); *Hoxie* v. *DEA,* 419 F.3d 477, 482 (6th Cir. 2005). Moreover, while I am required to consider each of the factors, I ''need not make explicit findings as to each one.'' *MacKay, supra,* 664 F.3d at 816 (quoting *Volkman,* 567 F.3d at 222); *see also Hoxie, supra,* 419 F.3d at 481.[8]

Under DEA's regulation, ''[a]t any hearing for the revocation or suspension of a registration, the Administration shall have the burden of proving that the requirements for such revocation or suspension pursuant to . . . 21 U.S.C. [§] 824(a) . . . are satisfied.'' 21 CFR 1301.44(e). The Government retains the burden of providing substantial evidence to support the proposed action even when the registrant does not request a hearing.

In this case, I conclude that the record supports two independent grounds for revoking Registrant's registrations. First, Registrant does not possess authority to dispense controlled substances under the laws of Oklahoma or Nevada, the States in which he is registered. 21 U.S.C. 824(a)(3). Second, Registrant violated multiple controlled substances-related regulatory requirements incumbent on registrants, thereby rendering his registrations ''inconsistent with the public interest.'' *Id.* § 824(a)(4).

Registrant's Lack of State Authority

DEA has long held that the possession of authority to dispense controlled substances under the laws of the State in which a practitioner engages in professional practice is a fundamental

[8] ''In short, this is not a contest in which score is kept; the Agency is not required to mechanically count up the factors and determine how many favor the Government and how many favor the registrant. Rather, it is an inquiry which focuses on protecting the public interest; what matters is the seriousness of the registrant's misconduct.'' *Jayam Krishna-Iyer, M.D.,* 74 FR 459, 462 (2009). Accordingly, as the Tenth Circuit has recognized, findings under a single factor can support the revocation of a registration. *MacKay, supra,* 664 F.3d at 821. Likewise, findings under a single factor can support the denial of an application.

condition for obtaining and maintaining a registration. *Frederick Marsh Blanton,* 43 FR 27616 (1978) (''State authorization to dispense or otherwise handle controlled substances is a prerequisite to the issuance and maintenance of a Federal controlled substances registration''). *See also Rezik A. Saqer,* 81 FR 22122, 22126 (2016) (''DEA has interpreted the CSA in this manner for nearly 40 years.'') and *James Hooper,* 76 FR 71371 (2011) (collecting cases), *pet for rev. denied,* 481 Fed. Appx. 826 (4th Cir. 2012).

As DEA has repeatedly held, this rule derives from multiple provisions of the CSA. First, in section 802(21), Congress defined the term ''practitioner'' to mean ''a physician . . . or other person licensed, registered or otherwise permitted, by . . . the jurisdiction in which he practices . . . to distribute, dispense, . . . [or] administer . . . a controlled substance in the course of professional practice . . . .'' 21 U.S.C. 802(21). Second, Congress directed that the Attorney General ''shall register practitioners . . . if the applicant is authorized to dispense . . . controlled substances under the laws of the State in which he practices.'' *Id.* § 823(f). Third, Congress authorized revocation ''upon a finding that the registrant . . . has had his State license . . . suspended [or] revoked . . . by competent State authority and is no longer authorized by State law to engage in the . . . dispensing of controlled substances.'' *Id.* § 824(a)(3).

Here, the Government has provided substantial evidence establishing that Registrant no longer possesses authorization to dispense controlled substances in Oklahoma and Nevada, the States in which he is registered. As found above, on June 18, 2015, the Oklahoma State Board of Osteopathic Examiners revoked Registrant's osteopathic license, GX 7, and effective August 11, 2015, the Nevada State Board of Osteopathic Medicine revoked his osteopathic license. GX 8. *See also* GX 9. Accordingly, I find the Government has proved by substantial evidence that Registrant's authorizations to prescribe controlled substances in both Oklahoma and Nevada have been revoked and I take official notice that both States' revocations remain in place as of the date of this Decision and Order. I, therefore, find that Registrant is currently without authority to dispense controlled substances in Oklahoma and Nevada, the States in which he is registered, and he is, therefore, not entitled to maintain his DEA registrations. *Frederick Marsh Blanton, supra.* Accordingly, I will order that his two registrations, BM9879024 and BM2782692, be revoked and that any pending application for the renewal or modification of these registrations be denied. 21 U.S.C. 824(a)(3), *id.* § 823(f).

Acts Inconsistent With the Public Interest

Pursuant to section 304(a)(4), the Attorney General is also authorized to revoke a registration ''upon a finding that the registrant . . . has committed such acts as would render his registration under section 823 of this title inconsistent with the public interest as determined under such section.'' 21 U.S.C. 824(a)(4).

In this matter, while I have considered all of the factors, I find the Government's evidence as to factors two and four dispositive.[9] I find that the record taken as a whole provides substantial evidence that Registrant violated provisions of the CSA requiring (1) the holding of a separate registration; (2) the taking of a biennial inventory; and (3) the maintenance of ''complete and accurate'' records.

Factors Two and Four—The Registrant's Experience in Dispensing Controlled Substances and Compliance With Applicable Laws Related to Controlled Substances

The Dispensing Allegations

The CSA requires a ''separate registration . . . at each principal place of business or professional practice where the applicant . . . distributes . . . or dispenses controlled substances . . . .'' 21 U.S.C. 822(e)(1). *See also* 21 CFR 1301.12(a); Clarification of Registration Requirements for Individual Practitioners, 71 FR 69478 (2006); *Joe W. Morgan,* 78 FR 61961 (2013). The CSA's definition of ''dispense'' explicitly includes the prescribing of a controlled substance. 21 U.S.C. 802(10).

Based on my review of the evidence submitted by the Government, the Registrant issued, from August 11, 2014 through October 29, 2014, at least 55 controlled substance prescriptions on prescriptions showing Registrant's name as well as ''Accelerated Rehabilitation & Pain Center'' and its Las Vegas, Nevada contact information, Registrant's Nevada license number, and DEA registration number BM2782692. *Supra.* Also during this time period, according to the evidence submitted by the Government, the address associated with DEA registration BM2782692 was in Oklahoma. *Supra.*

The Order to Show Cause alleged that, by issuing these 55 prescriptions ''in one state under a DEA registration issued for another state,'' Registrant violated 21 U.S.C. 822(e) and 21 CFR 1301.12(a) and (b)(3). GX 4, at 5. These legal provisions, however, do not concern issuing a prescription ''in one state under a DEA registration issued for another state.'' *Id.* Instead, they require a separate registration at each principal place of business or professional practice where controlled substances are dispensed.

Under 21 CFR 1306.05(a), controlled substance prescriptions are to ''bear . . . the name, address and registration number of the practitioner,'' among other things. Registrant's address on the 55 prescriptions the Government submitted is in Nevada. Thus, I conclude that Registrant maintained a principal place of business or professional practice in Nevada from August 11, 2014 through October 29, 2014 from which he issued at least 55 prescriptions for controlled substances. During this period, however, Registrant was not registered with the DEA in Nevada. *Supra.* Thus, I find that Registrant violated the separate registration requirements of 21 U.S.C. 822(e) and 21 CFR 1301.12(a) and (b)(3).

The Inventory and Recordkeeping Allegations

The CSA requires ''every registrant . . . as soon . . . as such registrant first engages in the . . . dispensing of controlled substances, and every second year thereafter, [to] make a complete and accurate record of all stocks thereof on hand . . . .'' 21 U.S.C. 827(a)(1). *See also* 21 U.S.C. 842(a)(5) (''unlawful acts'' include ''to refuse or negligently fail to make, keep, or furnish any record, report, notification, declaration, order or order form, statement, invoice, or information required . . .''). As found

[9] As to factor one, there is no evidence that either the Oklahoma State Board of Osteopathic Examiners or the Nevada State Board of Osteopathic Medicine made a recommendation to DEA; both, however, revoked Registrant's licenses to practice osteopathic medicine.

As to factor three, although the record contains evidence concerning Registrant's arrest at McCarran International Airport, I acknowledge that there is no evidence that Registrant has been convicted of an offense under Federal, Oklahoma, or Nevada law ''relating to the manufacture, distribution or dispensing of controlled substances.'' 21 U.S.C. 823(f)(3). However, there could be any number of reasons why a person who has engaged in criminal misconduct may never have been convicted of an offense under this factor, let alone have been prosecuted for one. *Dewey C. MacKay,* 75 FR 49956, 49973 (2010), *pet. for rev. denied, MacKay* v. *Drug Enforcement Admin.,* 664 F.3d 808 (10th Cir. 2011). The DEA has therefore held that ''the absence of such a conviction is of considerably less consequence in the public interest inquiry'' and is therefore not dispositive. *Id.*

The Government did not allege in the Show Cause Order any misconduct exclusively with respect to factor five.

above, during the execution of the AIW, Registrant could not produce a biennial inventory. *Supra.* Thus, I find that Registrant violated the CSA by failing to maintain a biennial inventory.

The CSA also requires registrants to maintain, on a current basis, complete and accurate records of each controlled substance received or dispensed. *See* 21 U.S.C. 827(a)(3) and 21 CFR 1304.21(a). *See also* 21 U.S.C. 842(a)(5). According to the DI, during the administrative inspection of May 2, 2013, Registrant failed to produce 32 invoices for controlled substances he had purchased. *Supra.* Thus, I find that Registrant violated the CSA by failing to comply with its recordkeeping requirements concerning controlled substances.

Order

Pursuant to the authority vested in me by 21 U.S.C. 824(a) and 21 U.S.C. 823(f), as well as 28 CFR 0.100(b), I order that DEA Certificates of Registration BM9879024 and BM2782692 issued to David D. Moon, D.O., be, and they hereby are, revoked. I further order that any pending application of David D. Moon, D.O., to renew or modify these registrations, as well as any other pending application, be, and it hereby is, denied. This order is effective May 30, 2017.

Dated: April 17, 2017.

Chuck Rosenberg,

Acting Administrator.

[FR Doc. 2017–08452 Filed 4–26–17; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF JUSTICE

National Institute of Justice

[OMB Number 1121–NEW]

Agency Information Collection Activities: Proposed New Information Collection Activity; Comment Request, Proposed Study Entitled "Tribal Youth Victimization Methods Study"

AGENCY: National Institute of Justice, U.S. Department of Justice.

ACTION: 60-day notice.

SUMMARY: The Department of Justice (DOJ), Office of Justice Programs, National Institute of Justice, 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.

DATES: Comments are encouraged and will be accepted for 60 days until June 26, 2017.

FOR FURTHER INFORMATION CONTACT: If you have additional comments especially on the estimated public burden or associated response time, suggestions, or need a copy of the proposed information collection instrument with instructions or additional information, please contact Christine Crossland, National Institute of Justice, Office of Research & Evaluation, 810 Seventh Street NW., Washington, DC 20531 (overnight 20001) or via email at *Christine.Crossland@usdoj.gov.*

SUPPLEMENTARY INFORMATION: This process is conducted in accordance with 5 CFR 1320.10. 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 National Institute of Justice, including whether the information will have practical utility;

—Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

—Evaluate whether, and if so how, the quality, utility, and clarity of the information to be collected can be enhanced; 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:* Survey development; Cognitive testing; Pilot testing of survey.

2. *The Title of the Form/Collection:* Tribal Youth Victimization Methods Study.

3. *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* The applicable component within the U.S. Department of Justice is the National Institute of Justice in the Office of Justice Programs.

4. *Affected public who will be asked or required to respond, as well as a brief abstract:* There has never been a national study of tribal youth regarding their victimization experiences that provides reliable, valid estimates of the scope of the problem. As a result, the incidence, prevalence, and nature of victimization experienced by American Indian and Alaska Native youth living in tribal communities is unknown. As a result, NIJ, in partnership with the Office of Juvenile Justice and Delinquency Prevention and the Office for Victims of Crime has funded this methods study that involves developing and testing a survey instrument, testing different modes of administration that can effectively assess exposure to violence and victimization, and determining the feasibility of using these procedures in tribal communities and settings.

The sample includes tribal youth 12 to 20 years of age. Cognitive testing will be conducted in four tribal settings with between 12–15 youth at each site. The pilot test involves the use of at least two but no more than three different modes of administration modes [*e.g.,* face-to-face interviews, self-administered questionnaire in paper and pencil format, audio computer assisted self-administered interviews (required), computer assisted telephone interviews]. The target sample is 375 completed interviews from three tribal settings (one in Alaska and two in the lower 48.)

Among the key outcomes that will be examined are the response and refusal rates, missing data, interview length, willingness to disclose sensitive information, respondent comfort, cost, ability to provide assistance to respondents, and the ease and adequacy of the human subjects' protocol.

5. *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The estimated range of burden for respondents participating in the cognitive interview is 90 minutes. Approximately 48 youth will be recruited to complete a cognitive interview. The estimated range of burden for respondents completing the survey in the pilot phase is expected to be 60 minutes for completion. The following factors were considered when creating the burden estimate: the estimated total number of sites (*i.e.,* 4 cognitive sites and 3 pilot sites), respondents (*i.e.,* 48 cognitive interviews and 375 pilot interviews for a total of 423 respondents), and parental and youth informed consent procedures for each phase.

6. *An estimate of the total public burden (in hours) associated with the collection:* The estimated public burden associated with this collection is 447 hours. It is estimated that each of the cognitive interviews will take 90

minutes to complete (48 respondents × 1.5 hour = 72 hours). Lastly, it is estimated that each pilot survey will take 60 minutes to complete (375 respondents × 1 hour = 375 hours). We estimate a 12-month data collection period, with all cognitive and pilot testing completed in one year.

If additional information is required contact: Melody Braswell, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Two Constitution Square, 145 N Street NE., 3E.405A, Washington, DC 20530.

Dated: April 24, 2017.

Melody Braswell,

Department Clearance Officer for PRA, U.S. Department of Justice.

[FR Doc. 2017–08520 Filed 4–26–17; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF LABOR

Office of the Secretary

Agency Information Collection Activities; Submission for OMB Review; Comment Request; On the Road to Retirement Surveys

ACTION: Notice.

SUMMARY: The Department of Labor (DOL) is submitting the Employee Benefits Security Administration (EBSA) sponsored information collection request (ICR) proposal titled, ''On the Road to Retirement Surveys,'' to the Office of Management and Budget (OMB) for review and approval for use in accordance with the Paperwork Reduction Act (PRA) of 1995. Public comments on the ICR are invited.

DATES: The OMB will consider all written comments that agency receives on or before May 30, 2017.

ADDRESSES: A copy of this ICR with applicable supporting documentation; including a description of the likely respondents, proposed frequency of response, and estimated total burden may be obtained free of charge from the *RegInfo.gov* Web site at *http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201412-1210-007* (this link will only become active on the day following publication of this notice) or by contacting Michel Smyth by telephone at 202–693–4129 (this is not a toll-free number) or by email at *DOL_PRA_PUBLIC@dol.gov*.

Submit comments about this request by mail to the Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for DOL–EBSA, Office of Management and Budget, Room 10235, 725 17th Street NW., Washington, DC 20503; by Fax: 202–395–5806 (this is not a toll-free number); or by email: *OIRA_submission@omb.eop.gov*. Commenters are encouraged, but not required, to send a courtesy copy of any comments by mail or courier to the U.S. Department of Labor—OASAM, Office of the Chief Information Officer, Attn: Departmental Information Compliance Management Program, Room N1301, 200 Constitution Avenue NW., Washington, DC 20210; or by email: *DOL_PRA_PUBLIC@dol.gov*.

FOR FURTHER INFORMATION: Contact Michel Smyth by telephone at 202–693–4129 (this is not a toll-free number) or by email at *DOL_PRA_PUBLIC@dol.gov*.

SUPPLEMENTARY INFORMATION: This ICR seeks PRA authority for the ''On the Road to Retirement Surveys'' information collection. More specifically, the EBSA seeks to undertake a long-term research study that will track U.S. households over several years in order to collect data and answer important research questions on how retirement planning strategies and decisions evolve over time. This collection will gather data about how people make planning and financial decisions before and during retirement, especially with regard to the information that they receive and how they respond to it. The data collection effort is designed to overcome the limitations seen in existing data collection activities. Gaining insight into Americans' decision-making processes and experiences will provide policy-makers and the research community with valuable information that can be used to guide future policy and research. This ICR seeks approval for pre-test surveys, a screening survey, an initial participant survey, an advice interaction survey, and an annual participant survey. Household reports on behavior and outcomes will be combined with survey responses on planning methods, strategies and financial information received to perform a cross-sectional analysis, conditional on other respondent attributes. The EBSA intends to use data drawn from multiple waves of various surveys to analyze how behavior evolves over time. Employee Retirement Income Security Act section 513(a) authorizes this information collection. *See* 29 U.S.C. 1143(a).

This proposed information collection is subject to the PRA. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an information collection, unless it is approved by the OMB under the PRA and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information if the collection of information does not display a valid Control Number. *See* 5 CFR 1320.5(a) and 1320.6. For additional information, see the related notice published in the **Federal Register** on February 29, 2016 (81 FR 10280).

Interested parties are encouraged to send comments to the OMB, Office of Information and Regulatory Affairs at the address shown in the **ADDRESSES** section within thirty (30) days of publication of this notice in the **Federal Register**. In order to help ensure appropriate consideration, comments should mention OMB ICR Reference Number 201412–1210–007. The OMB is particularly interested in comments that:

- 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 agency's 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.

Agency: DOL–EBSA.

Title of Collection: On the Road to Retirement Surveys.

OMB ICR Reference Number: 201412–1210–007.

Affected Public: Individuals or Households.

Total Estimated Number of Respondents: 10,390.

Total Estimated Annual Number of Responses: 19,607.

Total Estimated Annual Time Burden: 10,529 hours.

Total Estimated Annual Other Costs Burden: $0.

Authority: 44 U.S.C. 3507(a)(1)(D).

Dated: April 21, 2017.

Michel Smyth,

Departmental Clearance Officer.

[FR Doc. 2017–08486 Filed 4–26–17; 8:45 am]

BILLING CODE 4510–29–P

NATIONAL SCIENCE FOUNDATION

Proposal Review Panel for Materials Research; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation (NSF) announces the following meeting:

Name and Committee Code: Proposal Review Panel for Materials Research—Partnership for Research and Education in Materials, California State University Los Angeles SV (#1203).

Date and Time:

May 1, 2017; 8:00 a.m.–6:00 p.m.

May 2, 2017; 8:00 a.m.–12:00 p.m.

Place: California State University—Los Angeles, 5151 State University Drive, Los Angeles, CA 90032.

Type of Meeting: Part-Open.

Contact Person: Dr. Jose Caro, Program Director, Partnership for Research and Education in Materials, PREM., Division of Materials Research, Room 1065, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; Telephone (703) 292–4914.

Purpose of Meeting: NSF site visit to provide advice and recommendations concerning further NSF support for the Center.

Agenda

Monday, May 1, 2017; 8 a.m.–6 p.m.

8:00 a.m.–8:15 a.m. Continental Breakfast (Closed)
8:15 a.m.–8:30 a.m. Executive Session for Site Visit Team Only (Closed)
8:30 a.m.–8:55 a.m. Welcome and Overview by Administration
8:55 a.m.–9:30 a.m. PI's Overview of PREM
9:30 a.m.–9:45 a.m. Q&A for PI's and Administrator's Overviews
9:45 a.m.–10:15 a.m. Partner Institutions Interactions Q&A
10:15 a.m.–10:30 a.m. Break
10:30 a.m.–12:00 p.m. Research Presentations (CSULA)/Q&A
12:00 p.m.–12:15 p.m. Q&A for Science Presentations
12:15 p.m.–1:15 p.m. Lunch with students and post docs (no faculty).
1:15 p.m.–2:15 p.m. Facilities Overview and Visit
2:15 p.m.–2:45 p.m. Visiting Team with University Management (Closed)
2:45 p.m.–4:00 p.m. Poster Session with refreshments
4:00 p.m.–5:00 p.m. Executive session—SV Team only (Closed)
5:00 p.m.–5:45 p.m. SV Team meets with PREM Management Team
5:45 p.m. Adjourn
6:00 p.m. Dinner

Tuesday, May 2, 2017; 8 a.m.–12 p.m.

8:00 a.m.–8:30 a.m. Continental Breakfast. Golden Eagle Ballroom 1
8:30 a.m.–9:30 a.m. Education and Outreach Activities
9:30 a.m.–10:00 a.m. Q&A for Educational and Outreach Presentations
10:00 a.m.–11:45 a.m. Executive Sessions for Site Visit Team Only (Closed)
11:45 a.m.–12:00 p.m. NFS Debriefing with PREM
12:00 p.m. End of Site Visit
12:00 p.m. Working Lunch, Optional

Reason for Late Notice: Due to unforeseen scheduling complications and the necessity to proceed with review of the Center.

Reason for Closing: The work being reviewed during closed portions of the site visit will include information of a proprietary or confidential nature, including technical information; financial data, such as salaries and personal information concerning individuals associated with the proposals. These matters are exempt under 5 U.S.C. 552b(c), (4) and (6) of the Government in the Sunshine Act.

Dated: April 24, 2017.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2017–08478 Filed 4–26–17; 8:45 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Advisory Committee for International Science and Engineering; Notice of Meeting

In accordance with Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation (NSF) announces the following meeting:

Name and Committee Code: Advisory Committee for International Science and Engineering (#25104).

Date and Time:

May 15, 2017; 8:00 a.m. to 5:00 p.m.;
May 16, 2017; 8:00 a.m. to 1:00 p.m.

Place: National Science Foundation, 4121 Wilson Boulevard, Stafford II, Suite 1155.01, Arlington, Virginia 22230.

Type of Meeting: Part-Open.

Contact Person: Roxanne Nikolaus, Program Manager, National Science Foundation, 4121 Wilson Boulevard, Stafford II, Suite 1155.01, Arlington, Virginia 22230; 703–292–8710.

Purpose of Meeting: To provide advice, recommendations and counsel on major goals and policies pertaining to international programs and activities.

Agenda

Monday, May 15, 2017; 8:00 a.m.–5:00 p.m.

Office of International Science and Engineering Updates, including Countries and Regions and Programs and Analysis Clusters
Community Engagement—Follow-up on the November 2016 Advisory Committee-International Science and Engineering discussion of regional workshops
Student Programs—Discussion of NSF international programs for U.S. undergraduate and graduate students
OISE Strategic Planning—Discussion of overall strategy for international science collaboration (Closed Session)

Tuesday, May 16, 2017; 8:00 a.m.–1:00 p.m.

Meet with NSF leadership
International Vignettes—Discussion of examples of OISE investments

Reason for Closing: Session having to do with overall strategy for international science collaboration will include discussion of potential proposed agency actions and may properly be closed to the public under 5 U.S.C. 552b(c), (9), (B) of the Government in the Sunshine Act.

Dated: April 24, 2017.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2017–08480 Filed 4–26–17; 8:45 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Proposal Review Panel for Materials Research; Notice of Meeting

In accordance with the Federal Advisory Committee Act (Pub. L. 92–463, as amended), the National Science Foundation (NSF) announces the following meeting:

Name and Committee Code: Proposal Review Panel for Materials Research—Partnership for Research and Education in Materials, University of Puerto Rico at Humacao SV (#1203).

Date and Time:

May 11, 2017; 7:45 a.m.–6:00 p.m.
May 12, 2017; 7:30 a.m.–12:00 p.m.

Place: University of Puerto Rico at Humacao, Avenida José E. Aguiar Aramburu, Humacao Puerto Rico 00792.

Type of Meeting: Part-Open.

Contact Person: Dr. Jose Caro, Program Director, Partnership for Research and Education in Materials, PREM., Division of Materials Research, Room 1065, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; Telephone (703) 292–4914.

Purpose of Meeting: NSF site visit to provide advice and recommendations concerning further NSF support for the Center.

Agenda

Monday, May 1, 2017; 7:45 a.m.–6 p.m.

7:45 a.m.–8:15 a.m. Continental Breakfast Executive Session for Site Visit Team (Closed)
8:15 a.m.–8:30 a.m. Break
8:30 a.m.–8:45 a.m. Welcome and Overview by Administration
8:45 a.m.–9:30 a.m. PI's Overview of PREM
9:30 a.m.–9:45 a.m. Q&A for PI's and Administrator's Overviews
9:45 a.m.–10:15 a.m. Partner Institutions Interactions Q&A
10:15 a.m.–10:30 a.m. Break
10:30 a.m.–12:00 p.m. Research Presentations/Q&A
12:00 p.m.–12:15 p.m. Q&A for Science Presentations
12:15 p.m.–1:15 p.m. Lunch with students and post docs (no faculty).
1:15 p.m.–2:15 p.m. Facilities Overview and Visit
2:15 p.m.–2:45 p.m. Visiting Team with University Management (Closed)
2:45 p.m.–4:00 p.m. Poster Session with refreshments
4:00 p.m.–5:00 p.m. Executive session—SV Team only (Closed)
5:00 p.m.–5:45 p.m. SV Team meets with PREM Management Team
6:00 p.m. Adjourn

Tuesday, May 2, 2017; 7:30 a.m.–12 p.m.

7:30 a.m.–8:00 a.m. Continental Breakfast
8:00 a.m.–9:30 a.m. Education and Outreach Activities
9:30 a.m.–9:45 a.m. Q&A for Educational and Outreach Presentations
9:45 a.m.–10:00 a.m. Break
10:00 a.m.–11:45 a.m. Executive Sessions for Site Visit Team Only (Closed)
11:45 a.m.–12:00 p.m. NFS Debriefing with PREM PI
12:00 p.m. End of Site Visit
12:00 p.m. Working Lunch for Site Visit Team

Reason for Late Notice: Due to unforeseen scheduling complications and the necessity to proceed with review of the Center.

Reason for Closing: The work being reviewed during closed portions of the site visit will include information of a proprietary or confidential nature, including technical information; financial data, such as salaries and personal information concerning individuals associated with the proposals. These matters are exempt under 5 U.S.C. 552b(c), (4) and (6) of the Government in the Sunshine Act.

Dated: April 24, 2017.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2017–08479 Filed 4–26–17; 8:45 am]

BILLING CODE 7555–01–P

NATIONAL SCIENCE FOUNDATION

Request for Recommendations for Membership on Directorate and Office Advisory Committees

ACTION: Notice.

SUMMARY: The National Science Foundation (NSF) requests recommendations for membership on its scientific and technical Federal advisory committees. Recommendations should consist of the name of the submitting individual, the organization or the affiliation providing the member nomination, the name of the recommended individual, the recommended individual's curriculum vita, an expression of the individual's interest in serving, and the following recommended individual's contact information: employment address, telephone number, FAX number, and email address. Self-recommendations are accepted. If you would like to make a membership recommendation for any of the NSF scientific and technical Federal advisory committees, please send your recommendation to the appropriate committee contact person listed in the chart below.

ADDRESSES: The mailing address for the National Science Foundation is 4201 Wilson Boulevard, Arlington, VA 22230.

Web links to individual committee information may be found on the NSF Web site: NSF Advisory Committees.

SUPPLEMENTARY INFORMATION: Each Directorate and Office has an external advisory committee that typically meets twice a year to review and provide advice on program management; discuss current issues; and review and provide advice on the impact of policies, programs, and activities in the disciplines and fields encompassed by the Directorate or Office. In addition to Directorate and Office advisory committees, NSF has several committees that provide advice and recommendations on specific topics including: astronomy and astrophysics; environmental research and education; equal opportunities in science and engineering; cyberinfrastructure; international science and engineering; and business and operations.

A primary consideration when formulating committee membership is recognized knowledge, expertise, or demonstrated ability.[1] Other factors that may be considered are balance among diverse institutions, regions, and groups underrepresented in science, technology, engineering, and mathematics. Committee members serve for varying term lengths, depending on the nature of the individual committee. Although we welcome the recommendations we receive, we regret that NSF will not be able to acknowledge or respond positively to each person who contacts NSF or has been recommended. NSF intends to publish a similar notice to this on an annual basis. NSF will keep recommendations active for 12 months from the date of receipt.

The chart below is a listing of the committees seeking recommendations for membership. Recommendations should be sent to the contact person identified below. The chart contains web addresses where additional information about individual committees is available.

Advisory committee	Contact person
Advisory Committee for Biological Sciences *https://www.nsf.gov/bio/advisory.jsp*.	Brent Miller, Directorate for Biological Sciences; phone: (703) 292–8400; e-mail: *bmiller@nsf.gov;* fax: (703) 292–2988.

[1] Federally registered lobbyists are not eligible for appointment to these Federal advisory committees.

Advisory committee	Contact person
Advisory Committee for Computer and Information Science and Engineering *https://www.nsf.gov/cise/advisory.jsp*.	Gera Jochum, Directorate for Computer and Information Science and Engineering; phone: (703) 292–8900; e-mail: *gjochum@nsf.gov;* fax: (703) 292–9074.
Advisory Committee for Cyberinfrastructure *https://www.nsf.gov/cise/aci/advisory.jsp*.	Brenda Williams, Division of Advanced Cyberinfrastructure; phone: (703) 292–4554; e-mail: *bwilliam@nsf.gov;* fax: (703) 292–9060.
Advisory Committee for Education and Human Resources *https://www.nsf.gov/ehr/advisory.jsp*.	Keaven Stevenson, Directorate for Education and Human Resources; phone: (703) 292–8600; e-mail: *kstevens@nsf.gov;* fax: (703) 292–9179.
Advisory Committee for Engineering *https://www.nsf.gov/eng/advisory.jsp*.	Cecile Gonzalez, Directorate for Engineering; phone: (703) 292–8300; e-mail: *cjgonzal@nsf.gov;* fax: (703) 292–9013.
Advisory Committee for Geosciences *https://www.nsf.gov/geo/advisory.jsp*.	Melissa Lane, Directorate for Geosciences: phone: (703) 292–8500; e-mail: *mlane@nsf.gov;* fax: (703) 292–9042.
Advisory Committee for International Science and Engineering *https://www.nsf.gov/od/oise/advisory.jsp*.	Cassandra Dudka, Office of International Science and Engineering, phone: (703) 292–7250; e-mail: *cdudka@nsf.gov;* fax: (703) 292–9067.
Advisory Committee for Mathematical and Physical Sciences *https://www.nsf.gov/mps/advisory.jsp*.	John Gillaspy, Directorate for Mathematical and Physical Sciences; phone: (703) 292–7173; e-mail: *jgillasp@nsf.gov;* fax: (703) 292–9151.
Advisory Committee for Social, Behavioral & Economic Sciences *https://www.nsf.gov/sbe/advisory.jsp*.	Deborah Olster, Directorate for Social, Behavioral & Economic Sciences; phone: (703) 292–8700; E-Mail: *dholster@nsf.gov;* fax: (703) 292–9083.
Advisory Committee for Polar Programs *https://www.nsf.gov/geo/plr/advisory.jsp*.	Andrew Backe, Office of Polar Programs; phone: (703) 292–2454; e-mail: *abacke@nsf.gov;* fax: (703) 292–9081.
Committee on Equal Opportunities in Science and Engineering *https://www.nsf.gov/od/oia/activities/ceose/*.	Bernice Anderson, Office of Integrative Activities; phone: (703) 292–8040; e-mail: *banderso@nsf.gov;* fax: (703) 292–9040.
Advisory Committee for Business and Operations *https://www.nsf.gov/oirm/bocomm/*.	Jeffrey Rich, Office of Information and Resource Management; phone: (703) 292–8100; e-mail: *jrich@nsf.gov;* fax: (703) 292–9084.
Advisory Committee for Environmental Research and Education *https://www.nsf.gov/dir/index.jsp?org=ERE*.	Stephen Meacham, Office of Integrative Activities; phone: (703) 292–8040; e-mail: *smeacham@nsf.gov;* fax: (703) 292–9040.
Astronomy and Astrophysics Advisory Committee *https://www.nsf.gov/mps/ast/aaac.jsp*.	Elizabeth Pentecost, Division of Astronomical Sciences; phone: (703) 292–4907; e-mail: *epenteco@nsf.gov;* fax: (703) 292–9034.

Dated: April 24, 2017.

Crystal Robinson,

Committee Management Officer.

[FR Doc. 2017–08481 Filed 4–26–17; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2016–0174]

Information Collection: DOE/NRC Form 740M, Concise Note; DOE/NRC Form 741, Nuclear Material Transaction Report; DOE/NRC Form 742, Material Balance Report; DOE/NRC Form 742C, Physical Inventory Listing

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of submission to the Office of Management and Budget (OMB); request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has recently submitted a request for renewal of an existing collection to OMB for review. The information collections are entitled, ''DOE/NRC Form 740M, Concise Note; DOE/NRC Form 741, Nuclear Material Transaction Report; DOE/NRC Form 742, Material Balance Report; and DOE/NRC Form 742C, Physical Inventory Listing.''

DATES: Submit comments May 30, 2017.

ADDRESSES: Submit comments directly to the OMB reviewer at: Aaron Szabo, Desk Officer, Office of Information and Regulatory Affairs (3150–0057, 3150–0003, 3150–0004, 3150–0058), NEOB–10202, Office of Management and Budget, Washington, DC 20503; telephone: 202–395–3621, email: *oira_submission@omb.eop.gov*.

FOR FURTHER INFORMATION CONTACT: David Cullison, NRC Clearance Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *INFOCOLLECTS.Resource@nrc.gov*.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2016–0174 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- *Federal rulemaking Web site:* Go to *http://www.regulations.gov* and search for Docket ID NRC–2016–0174. A copy of the collection of information and related instructions may be obtained without charge by accessing Docket ID NRC–2016–0174.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly-available documents online in the ADAMS Public Documents collection at *http://www.nrc.gov/reading-rm/adams.html.* To begin the search, select ''*ADAMS Public Documents*'' and then select ''*Begin Web-based ADAMS Search*.'' For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to *pdr.resource@nrc.gov.* A copy of the collection of information and related instructions may be obtained without charge by accessing the following ADAMS Accession No. ML17009A231. Guidance documents are available for the Forms in ADAMS as follows: NUREG/BR–0006, Revision 7, Accession No. ML111740924, and NUREG/BR–0007 Accession No. ML090120288. The supporting statements for each DOE/NRC Form and the forms themselves are available in ADAMS as follows: DOE/NRC Form 740M, ''Concise Note'' Accession Nos. ML17009A233 and ML16252A189; DOE/NRC Form 741, ''Nuclear Material Transaction Report'' Accession Nos. ML17009A234 and ML16252A191; DOE/NRC Form 742, ''Material Balance Report'' Accession numbers ML17009A235 and ML16252A192; and DOE/NRC Form 742C, ''Physical Inventory Listing'' Accession Nos. ML17009A236 and ML16252A193.

• *NRC's PDR:* You may examine and purchase copies of public documents at the NRC's PDR, Room O1–F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

• *NRC's Clearance Officer:* A copy of the collection of information and related instructions may be obtained without charge by contacting the NRC's Clearance Officer, David Cullison, Office of the Chief Information Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone: 301–415–2084; email: *INFOCOLLECTS.Resource@NRC.GOV.*

B. Submitting Comments

The NRC cautions you not to include identifying or contact information in comment submissions that you do not want to be publicly disclosed in your comment submission. All comment submissions are posted at *http://www.regulations.gov* and entered into ADAMS. Comment submissions are not routinely edited to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the OMB, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that comment submissions are not routinely edited to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Background

Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35), the NRC recently submitted a revision of a collection of information to OMB for review entitled, ''DOE/NRC Form 740M, Concise Note; DOE/NRC Form 741, Nuclear Material Transaction Report; DOE/NRC Form 742, Material Balance Report; DOE/NRC Form 742C, Physical Inventory Listing.'' The NRC hereby informs potential respondents that an agency may not conduct or sponsor, and that a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The NRC published a **Federal Register** notice with a 60-day comment period on this information collection on October 28, 2016 (81 FR 75167).

1. *The title of the information collection:* DOE/NRC Form 740M, Concise Note; DOE/NRC Form 741, Nuclear Material Transaction Report; DOE/NRC Form 742, Material Balance Report; DOE/NRC Form 742C, Physical Inventory Listing.

2. *OMB approval numbers:*
DOE/NRC Form 740M: 3150–0057.
DOE/NRC Form 741: 3150–0003.
DOE/NRC Form 742: 3150–0004.
DOE/NRC Form 742C: 3150–0058.

3. *Type of submission:* Revision.

4. *The form number if applicable:* DOE/NRC Forms 740M, 741, 742, and 742C.

5. *How often the collection is required or requested:* DOE/NRC Form 741, Nuclear Material Transaction Reports will be collected whenever nuclear material is shipped or received into the Material Balance Area; DOE/NRC Form 742, Material Balance Report will be collected on an annual basis; DOE/NRC Form 742C, Physical Inventory Listing will be collected on an annual basis; DOE/NRC Form 740M, Concise Note Forms are used when needed.

6. *Who will be required or asked to respond:* Persons licensed to possess specified quantities of nuclear material and entities subject to the U.S. IAEA Caribbean Territories Safeguards Agreement (INFCIRC/366) are required to respond as follows:

Any licensee who ships, receives, or otherwise undergoes an inventory change of nuclear material is required to submit a DOE/NRC Form 741 to document the change. Additional information regarding these transactions shall be submitted through Form 740M, with Safeguards Information identified and handled in accordance with 10 CFR 73.21, ''Requirements for the Protection of Safeguards Information.''

Any licensee who had possessed in the previous reporting period, at any one time and location, nuclear material in a quantity totaling one gram or more shall complete DOE/NRC Form 742. In addition, each licensee, Federal or State, who is authorized to possess, at any one time or location, one kilogram of foreign obligated source material, is required to file with the NRC an annual statement of source material inventory which is foreign obligated.

Any licensee, who had possessed in the previous reporting period, at any one time and location, special nuclear material in a quantity totaling one gram or more shall complete DOE/NRC Form 742C.

7. *The estimated number of annual responses:*
DOE/NRC Form 740M: 175.
DOE/NRC Form 741: 10,000.
DOE/NRC Form 742: 385.
DOE/NRC Form 742C: 385.

8. *The estimated number of annual respondents:*
DOE/NRC Form 740M: 40.
DOE/NRC Form 741: 350.
DOE/NRC Form 742: 385.
DOE/NRC Form 742C: 385.

9. *An estimate of the total number of hours needed annually to comply with the information collection requirement or request:*
DOE/NRC Form 740M: 131.
DOE/NRC Form 741: 12,500.
DOE/NRC Form 742: 1,310.
DOE/NRC Form 742C: 1,490.

10. *Abstract:* Persons licensed to possess specified quantities of nuclear material currently report inventory and transaction of material to the Nuclear Materials Management and Safeguards System via the DOE/NRC Forms: DOE/NRC Form 740M, Concise Note; DOE/NRC Form 741, Nuclear Material Transaction Report; DOE/NRC Form 742, Material Balance Report; DOE/NRC Form 742C, Physical Inventory Listing. This collection is being renewed to include approximately 25 entities subject to the U.S. IAEA Caribbean Territories Safeguards Agreement (INFCIRC/366). 10 CFR part 75 requires licensees to provide reports of nuclear material inventory and flow for entities under the U.S. IAEA Caribbean Territories Safeguards Agreement (INFCIRC/366), permit inspections by IAEA inspectors, give immediate notice to the NRC in specified situations involving the possibility of loss of nuclear material, and give notice for imports and exports of specified amounts of nuclear material. These licensees will also follow written material accounting and control procedures, although actual reporting of transfer and material balance records to the IAEA will be done through the U.S. State system (Nuclear Materials Management and Safeguards System, collected under OMB clearance numbers 3150–0003, 3150–0004, 3150–0057, and 3150–0058.) The NRC needs this information to implement its international obligations under the *U.S.-IAEA Caribbean Territories Safeguards Agreement (INFCIRC/366).*

Dated at Rockville, Maryland, this 24th day of April 2017.

For the Nuclear Regulatory Commission.

David Cullison,

NRC Clearance Officer, Office of the Chief Information Officer.

[FR Doc. 2017–08533 Filed 4–26–17; 8:45 am]

BILLING CODE 7590–01–P

POSTAL SERVICE

Temporary Emergency Committee of the Board of Governors; Sunshine Act Meeting

DATES AND TIMES: Tuesday, May 9, 2017, at 9:00 a.m.; and Wednesday, May 10, at 8:00 a.m.

PLACE: Washington, DC, at U.S. Postal Service Headquarters, 475 L'Enfant Plaza SW., in the Benjamin Franklin Room.

STATUS: Tuesday, May 9, 2017, at 9:00 a.m.—Closed; Wednesday, May 10, at 8:00 a.m.—Open.

Matters to be Considered

Tuesday, May 9, 2017, at 9:00 a.m. (Closed)

1. Financial Matters.

2. Strategic Issues.

3. Governors' Executive Session—Discussion of prior agenda items and Board governance.

Wednesday, May 10, 2017, at 8:00 a.m. (Open)

1. Remarks of the Postmaster General and CEO and Chairman of the Temporary Emergency Committee of the Board.

2. Approval of Minutes of Previous Meetings.

3. Committee Reports.

4. Quarterly Report on Financial Performance.

5. Quarterly Service Performance Report.

6. Tentative Agenda for the June 20 Meeting.

CONTACT PERSON FOR MORE INFORMATION: Julie S. Moore, Secretary of the Board, U.S. Postal Service, 475 L'Enfant Plaza SW., Washington, DC 20260–1000. Telephone: (202) 268–4800.

Julie S. Moore,

Secretary.

[FR Doc. 2017–08676 Filed 4–25–17; 4:15 pm]

BILLING CODE 7710–12–P

RAILROAD RETIREMENT BOARD

Proposed Collection; Comment Request

Summary: In accordance with the requirement of Section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 which provides opportunity for public comment on new or revised data collections, the Railroad Retirement Board (RRB) will publish periodic summaries of proposed data collections.

Comments are invited on: (a) Whether the proposed information collection is necessary for the proper performance of the functions of the agency, including whether the information has practical utility; (b) the accuracy of the RRB's estimate of the burden of the collection of the information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden related to the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Title and purpose of information collection: Representative Payee Monitoring; OMB 3220–0151. Under Section 12 of the Railroad Retirement Act (RRA), the RRB may pay annuity benefits to a representative payee when an employee, spouse, or survivor annuitant is incompetent or a minor. The RRB is responsible for determining if direct payment to an annuitant or a representative payee would best serve the annuitant's best interest. The accountability requirements authorizing the RRB to conduct periodic monitoring of representative payees, including a written accounting of benefit payments received, are prescribed in 20 CFR 266.7. The RRB utilizes the following forms to conduct its representative payee monitoring program.

Form G–99a, *Representative Payee Report,* is used to obtain information needed to determine whether the benefit payments certified to the representative payee have been used for the annuitant's current maintenance and personal needs and whether the representative payee continues to be concerned with the annuitant's welfare. RRB Form G–99c, *Representative Payee Evaluation Report,* is used to obtain more detailed information from a representative payee who fails to complete and return Form G–99a or in situations when the returned Form G–99a indicates the possible misuse of funds by the representative payee. Form G–99c contains specific questions concerning the representative payee's performance and is used by the RRB to determine whether or not the representative payee should continue in that capacity. The RRB proposes no changes to Forms G–99a and G–99c.

In response to the RRB's Office of Inspector General's recommendation to strengthen the controls of the agency's representative payee monitoring program, the RRB proposes new Form G–106, *Statement of Care and Responsibility to Annuitant.* In cases where the representative payee does not have custody of the annuitant, Form G–106 will be used to solicit information about the representative payee's performance and the annuitant's well-being from the custodian of the annuitant. The proposed form contains specific questions concerning the representative payee's performance, and will be used by the RRB to determine whether or not the representative payee should continue in that capacity.

Completion of the forms in this collection is required to retain benefits.

ESTIMATE OF ANNUAL RESPONDENT BURDEN

Form number	Annual responses	Time (minutes)	Burden (hours)
G–99a (legal and all other, excepting parent for child)	5,400	18	1,620
G–99c (Parts I and II)	300	24	120
G–99c (Parts I, II, and III)	120	31	62
G–106	500	10	83
Total	6,320	.....	1,885

Additional Information or Comments: To request more information or to obtain a copy of the information collection justification, forms, and/or supporting material, contact Dana Hickman at (312) 751–4981 or *Dana.Hickman@RRB.GOV*. Comments regarding the information collection should be addressed to Brian Foster, Railroad Retirement Board, 844 North Rush Street, Chicago, Illinois 60611–1275 or emailed to *Brian.Foster@rrb.gov*. Written comments should be received within 60 days of this notice.

Brian D. Foster,

Clearance Officer.

[FR Doc. 2017–08477 Filed 4–26–17; 8:45 am]

BILLING CODE 7905–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80501; File No. SR–NYSEArca–2016–176]

Self-Regulatory Organizations; NYSE Arca, Inc.; Order Instituting Proceedings To Determine Whether To Approve or Disapprove a Proposed Rule Change Relating to the Listing and Trading of Shares of the EtherIndex Ether Trust Under NYSE Arca Equities Rule 8.201

April 21, 2017.

On December 30, 2016, NYSE Arca, Inc. (''NYSE Arca'' or ''Exchange'') 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 list and trade shares (''Shares'') of the EtherIndex Ether Trust (''Trust'') under NYSE Arca Equities Rule 8.201. The proposed rule change was published for comment in the **Federal Register** on January 23, 2017.[3] On February 23, 2017, pursuant to Section 19(b)(2) of the Act,[4] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to approve or disapprove the proposed rule change.[5] The Commission has received no comments on the proposed rule change.

This order institutes proceedings under Section 19(b)(2)(B) of the Act [6] to determine whether to approve or disapprove the proposed rule change.

I. Summary of the Proposal [7]

The Exchange proposes to list and trade the Shares under NYSE Arca Equities Rule 8.201, which governs the listing and trading of Commodity-Based Trust Shares on the Exchange.[8] Each Share would represent a fractional undivided beneficial interest in the Trust's net assets. According to the Exchange, the Trust's assets primarily would consist of ether,[9] which would be held in the custody of, and secured by, the Trust's ether custodian, Coinbase (''Custodian'').[10] The Trust would create and redeem the Shares only in ''Baskets'' of 10,000 Shares, and orders to create and redeem Baskets may be placed only by Authorized Participants. The creation and redemption transactions would be conducted for cash or, at the discretion of the sponsor of the Trust, EtherIndex LLC, ''in-kind'' for ether, and the NAV of the Baskets being created or redeemed would be based on the aggregate number of ether represented by the Shares included in the Baskets as of the day the order to create or redeem was properly received.

The investment objective of the Trust would be for the Shares to track the price of ether as measured by the price of ether in U.S. dollars reported by the Global Digital Asset Exchange (''GDAX'') as of 4:00 p.m., Eastern Time (''GDAX Price''). The NAV of the Trust would be calculated each business day based on the GDAX Price. The Trust's Web site would provide an intra-day indicative value (''IIV'') per Share updated every 15 seconds, as calculated by the Exchange or a third-party financial data provider during the Exchange's Core Trading Session (*i.e.,* 9:30 a.m. ET to 4:00 p.m. Eastern Time). The IIV would be calculated by using the prior day's closing NAV per Share as a base and updating that value during the NYSE Arca Core Trading Session to reflect changes in the value of the Trust's ether holdings during the trading day.

II. Proceedings to Determine Whether To Approve or Disapprove SR–NYSEArca–2016–176 and Grounds for Disapproval Under Consideration

The Commission is instituting proceedings pursuant to Section 19(b)(2)(B) of the Act [11] to determine whether the proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[12] the Commission is providing notice of the grounds for disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of the proposed rule change's consistency with Section 6(b)(5) of the Act, which requires, among other things, that the rules of a national securities exchange be ''designed to prevent fraudulent and manipulative acts and practices'' and ''to protect investors and the public interest.'' [13]

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[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 79792 (Jan. 13, 2017), 82 FR 7891 (Jan. 23, 2017) (''Notice'').

[4] 15 U.S.C. 78s(b)(2).

[5] *See* Securities Exchange Act Release No. 80094 (Feb. 23, 2017), 82 FR 12268 (Mar. 1, 2017). The Commission designated April 23, 2017, as the date by which it should approve, disapprove, or institute proceedings to determine whether to approve or disapprove the proposed rule change.

[6] 15 U.S.C. 78s(b)(2)(B).

[7] The Commission notes that additional information regarding the Trust and the Shares can be found in the Notice, *see supra* note 3, and the Registration Statement, which was filed by the Trust on Form S–1 under the Securities Act of 1933 on July 15, 2016, and amended on November 28, 2016. This additional information addresses the Trust's investment objectives, risks, creation and redemption procedures, fees, portfolio holdings disclosure policies, calculation of the net asset value (''NAV''), distributions, and taxes, as well as additional background information about ether and the Ethereum Network, including information relating to, among other things, Ethereum Network operations, ether transfers and transactions, cryptographic security used in the Ethereum Network, ether mining and creation of new ether, the supply of ether, and modifications to the ether protocol.

[8] *See* NYSE Arca Equities Rule 8.201 (permitting the listing and trading of ''Commodity-Based Trust Shares,'' defined as a security ''(a) that is issued by a trust that holds a specified commodity deposited with the Trust; (b) that is issued by such Trust in a specified aggregate minimum number in return for a deposit of a quantity of the underlying commodity; and (c) that, when aggregated in the same specified minimum number, may be redeemed at a holder's request by such Trust which will deliver to the redeeming holder the quantity of the underlying commodity'').

[9] The Exchange represents that ether is a digital asset similar to bitcoin and is not issued by any government, bank, or central organization, but rather is issued by, and is transmitted through, the decentralized, open-source protocol of the peer-to-peer Ethereum Network. The Exchange represents that unlike bitcoin, ether was not designed to function purely as a store of value. Instead, ether was meant to pay for specific actions on the Ethereum Network. However, according to the Exchange, ether's market is currently supported by many of the same online exchanges and the same infrastructure that has developed around the bitcoin network.

[10] According to the Exchange, the private keys that control the Trust's ether would be secured by the Custodian and stored completely offline in a ''cold storage'' system. The Exchange represents that the Custodian's cold storage system is founded on the principles of (i) building defense-in-depth against external threats, (ii) protecting against human error, and (iii) guarding against misuse of insider access. The Custodian's cold storage mechanism involves generating private keys on an ''air-gapped'' computer (*i.e.,* a computer that has never been connected to the Internet), then splitting these keys into segments using a special algorithm to ensure that no one individual knows how the key was fragmented, and finally distributing these fragments geographically so that no one entity can access the cold storage without the other individuals contributing their fragment of the key. According to the Exchange, the Custodian maintains insurance against theft and electronic compromise in an amount that exceeds the average value of ether that it holds online at any one time. The Exchange also represents that the Trust may hold cash for short periods in connection with the creation and redemption process and to pay certain fees, expenses, and liabilities.

[11] 15 U.S.C. 78s(b)(2)(B).

[12] *Id.*

[13] 15 U.S.C. 78f(b)(5).

III. Procedure: Request for Written Comments

The Commission requests that interested persons provide written submissions of their views, data, and arguments with respect to the issues identified above, as well as any other concerns they may have with the proposal. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Section 6(b)(5) or any other provision of the Act, or the rules and regulations thereunder. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[14]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by May 18, 2017. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by June 1, 2017. The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, which are set forth in the Notice.[15] In addition to any other comments commenters may wish to submit about the proposed rule change, the Commission invites commenters' views concerning any features that distinguish the Exchange's proposal from other proposals to list and trade shares of commodity-trust ETPs.

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 email to *rule-comments@sec.gov.* Please include File Number SR–NYSEArca–2016–176 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 Numbers SR–NYSEArca–2016–176. This file number should be included on the subject line if email 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of these filings 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 Number SR–NYSEArca–2016–176 and should be submitted on or before May 18, 2017. Rebuttal comments should be submitted by June 1, 2017.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08461 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

[14] Section 19(b)(2) of the Act, as amended by the Securities Act Amendments of 1975, Public Law 94–29 (June 4, 1975), grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by a self-regulatory organization. *See* Securities Act Amendments of 1975, Senate Comm. on Banking, Housing & Urban Affairs, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[15] *See supra* note 3.

[16] 17 CFR 200.30–3(a)(57).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80502; File No. SR–NYSEArca–2017–06]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing of Amendment No. 1, and Order Instituting Proceedings To Determine Whether To Approve or Disapprove a Proposed Rule Change, as Modified by Amendment No. 1, Relating to the Listing and Trading of Shares of the Bitcoin Investment Trust Under NYSE Arca Equities Rule 8.201

April 21, 2017.

On January 25, 2017, NYSE Arca, Inc. (''NYSE Arca'' or ''Exchange'') 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 list and trade shares of the Bitcoin Investment Trust under NYSE Arca Equities Rule 8.201. The proposed rule change was published for comment in the **Federal Register** on February 9, 2017.[3]

On March 22, 2017, pursuant to Section 19(b)(2) of the Act,[4] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to approve or disapprove the proposed rule change.[5] The Commission received four comment letters on the proposed rule change.[6] On April 6, 2017, the Exchange filed Amendment No. 1 to the proposed rule change.

The Commission is publishing this notice to solicit comment on the proposed rule change, as modified by Amendment No. 1,[7] from interested

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 79955 (Feb. 3, 2017), 82 FR 10086 (Feb. 9, 2017) (''Notice'').

[4] 15 U.S.C. 78s(b)(2).

[5] *See* Securities Exchange Act Release No. 80297 (Mar. 22, 2017), 82 FR 15408 (Mar. 28, 2017). The Commission designated May 10, 2017, as the date by which it should approve, disapprove, or institute proceedings to determine whether to approve or disapprove the proposed rule change.

[6] *See* Letters from Joseph Stephen White (Feb. 5, 2017); Anonymous (Feb. 8, 2017) (purportedly from Jeffrey Wilcke, Ethereum Foundation); Mark T. Williams, Finance Professor, Boston University (Mar. 13, 2017); Clark J. Haley (Apr. 17, 2017). All comments on the proposed rule change are available on the Commission's Web site at *https://www.sec.gov/comments/sr-nysearca-2017-06/nysearca201706.htm.*

[7] The Exchange's description of the proposed rule change, as modified by Amendment No. 1, is described in Sections I and II below, which Sections have been prepared by the Exchange. In

persons and is instituting proceedings under Section 19(b)(2)(B) of the Act [8] to determine whether to approve or disapprove the proposed rule change, as modified by Amendment No. 1.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to list and trade shares of the following under NYSE Arca Equities Rule 8.201: Bitcoin Investment Trust (''Trust''). The proposed rule change is available on the Exchange's Web site at *www.nyse.com,* at the principal office of the Exchange, and at 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

Under NYSE Arca Equities Rule 8.201, the Exchange may propose to list and/or trade pursuant to unlisted trading privileges (''UTP'') ''Commodity-Based Trust Shares.'' [9] The Exchange proposes to list and trade shares (''Shares'') of the Trust pursuant to NYSE Arca Equities Rule 8.201.[10]

The sponsor of the Trust is Grayscale Investments, LLC (''Sponsor''), a Delaware limited liability company. The Sponsor is a wholly-owned subsidiary of Digital Currency Group, Inc. (''Digital Currency Group''). The trustee for the Trust is Delaware Trust Company (''Trustee''). The Bank of New York Mellon will be the Trust's transfer agent (in such capacity, ''Transfer Agent'') and the administrator of the Trust (in such capacity, ''Administrator''). Xapo Inc. is the custodian for the Trust (''Custodian'').[11] ALPS Portfolio Solutions Distributor, Inc. will be the marketing agent for the Trust (''Marketing Agent'').

The Trust is a Delaware statutory trust, organized on September 13, 2013, that operates pursuant to a trust agreement between the Sponsor and the Trustee. The Trust has no fixed termination date.

According to the Registration Statement, each Share will represent a proportional interest, based on the total number of Shares outstanding, in the bitcoins held by the Trust, less the Trust's liabilities, which include accrued but unpaid fees and expenses. The Trust's assets will consist solely of bitcoins held on the Trust's behalf by the Custodian. The Trust has not had a cash balance at any time since inception. When selling bitcoins to pay expenses, the Sponsor will endeavor to sell the exact number of bitcoins needed to pay expenses in order to minimize the Trust's holdings of assets other than bitcoin. As a consequence, the Trust expects that it will not record any cash flow from its operations and that its cash balance will be zero at the end of each reporting period.

The activities of the Trust will be limited to (i) issuing ''Baskets'' (as defined below) in exchange for bitcoins deposited by the ''Authorized Participants'' (as defined below) or ''Liquidity Providers'' (as defined below), as applicable, with the Custodian as consideration, (ii) transferring actual bitcoins as necessary to cover the Sponsor's management fee and selling bitcoins as necessary to pay certain other fees that are not contractually assumed by the Sponsor, (iii) transferring actual bitcoins in exchange for Baskets surrendered for redemption by the Authorized Participants, (iv) causing the Sponsor to sell bitcoins on the termination of the Trust and (v) engaging in all administrative and custodial procedures necessary to accomplish such activities in accordance with the provisions of applicable agreements. The Trust is not actively managed. It will not engage in any activities designed to obtain a profit from, or to ameliorate losses caused by, changes in the market price of bitcoins.

According to the Registration Statement, the Trust is neither an investment company registered under the Investment Company Act of 1940, as amended, (''1940 Act'') [12] nor a commodity pool for purposes of the Commodity Exchange Act,[13] and neither the Sponsor nor the Trustee is subject to regulation as a commodity pool operator or a commodity trading adviser in connection with the Shares.

Investment Objective

According to the Registration Statement, and as further described below, the investment objective of the Trust will be for the Shares to reflect the performance of the value of a bitcoin as represented by the TradeBlock XBX

Amendment No. 1, the Exchange, among other things (a) added content relating to the Trust's security arrangements (*see* Section II.A.1, *infra* (discussion in subheading ''Bitcoin Security and Storage'')); (b) added content relating to changes in transactions fees and trading volumes on China-based bitcoin exchanges (*see* Section II.A.1, *infra* (discussion in subheading ''Bitcoin Exchanges'')); (c) revised information and statistics relating to the trading volumes on, and market shares of, the largest U.S. dollar denominated bitcoin exchanges (*see* Section II.A.1, *infra* (table entitled ''Eight Largest U.S. Dollar-Denominated Bitcoin Exchanges by Trade Volume'' under subheading ''Bitcoin Exchanges'')); (d) deleted content relating to a platform license agreement between the Index Provider and Genesis (*see* Section II.A.1, *infra* (discussion in subheading ''Bitcoin Index Price'')); and (e) clarified and added content relating to the Trust's creation and redemption processes, particularly the Conversion Procedures (*see* Section II.A.1, *infra* (discussion in subheading ''Creation and Redemption of Shares'')). Amendment No. 1, which superseded and replaced the proposed rule change in its entirety, is available on the Commission's Web site at: *https://www.sec.gov/comments/sr-nysearca-2017-06/nysearca201706-1689847-149663.pdf.*

[8] 15 U.S.C. 78s(b)(2)(B).

[9] Commodity-Based Trust Shares are securities issued by a trust that represent investors' discrete identifiable and undivided beneficial ownership interest in the commodities deposited into the Trust.

[10] On March 24, 2017, the Trust filed Amendment No. 1 to its registration statement (''Registration Statement'') on Form S–1 under the Securities Act of 1933 (15 U.S.C. 77a) (File No. 333–215627). The descriptions of the Trust, the Shares and bitcoin contained herein are based, in part, on the Registration Statement. This Amendment No. 1 to SR–NYSEArca–2017–06 replaces SR–NYSEArca–2017–06 as originally filed and supersedes such filing in its entirety. On March 4, 2016, the Trust submitted to the Commission an amended Form D as a business trust. Shares of the Trust have been quoted on OTC Market's OTCQX Best Marketplace under the symbol ''GBTC'' since March 26, 2015. On November 11, 2016, the Trust also published a quarterly report for GBTC for the period ended September 30, 2016, which can be found on OTC Market's Web site: *http://www.otcmarkets.com/stock/GBTC/filings.* The Shares will be of the same class and will have the same rights as shares of GBTC. Effective October 28, 2014, the Trust suspended its redemption program for shares of GBTC, in which shareholders were permitted to request the redemption of their shares through Genesis Global Trading, Inc. (formerly known as SecondMarket, Inc.), an affiliate of the Sponsor and the Trust (''Genesis''). According to the Sponsor, freely tradeable shares of GBTC will remain unregistered freely tradeable Shares on the date of the listing of the Shares unless, if authorized by the Trust, holders of GBTC sell the shares in the initial public offering. Restricted shares of GBTC will remain subject to private placement restrictions and the holders of such restricted shares may either (i) continue to hold those shares subject to those restrictions or (ii) if authorized by the Trust, sell the restricted shares in the initial public offering.

[11] According to the Registration Statement, Digital Currency Group owns a minority interest in the Custodian that represents less than 1.0% of the Custodian's equity.

[12] 15 U.S.C. 80a–1.

[13] 17 U.S.C. 1.

Index (''Index''),[14] less the Trust's liabilities and expenses.

The Shares are designed to provide investors with a cost-effective and convenient way to invest in bitcoin. A substantial direct investment in bitcoins may require expensive and sometimes complicated arrangements in connection with the acquisition, security and safekeeping of the bitcoins and may involve the payment of substantial fees to acquire such bitcoins from third-party facilitators through cash payments of U.S. dollars. Although the Shares will not be the exact equivalent of a direct investment in bitcoins, they will provide investors with an alternative that constitutes a relatively cost-effective way to participate in bitcoin markets through the securities market.

Overview of the Bitcoin Industry and Market

The following is a brief introduction to the bitcoin industry and the bitcoin market based on information provided in the Registration Statement.

The Bitcoin Network

A bitcoin is a decentralized digital currency that is issued by, and transmitted through, an open-source digital protocol platform using cryptographic security that is known as the ''Bitcoin Network.'' The Bitcoin Network is an online, peer-to-peer user network that hosts a public transaction ledger, known as the ''Blockchain,'' and the source code that comprises the basis for the cryptography and digital protocols governing the Bitcoin Network. No single entity owns or operates the Bitcoin Network, the infrastructure of which is collectively maintained by a decentralized user base. Bitcoins can be used to pay for goods and services or can be converted to fiat currencies, such as the U.S. dollar, at rates determined on electronic marketplaces where exchange participants may first use fiat currency to trade, buy and sell bitcoins based on bid-ask trading (''Bitcoin Exchanges'') or in individual end-user-to-end-user transactions under a barter system.

The Blockchain is comprised of a digital file, downloaded and stored, in whole or in part, on all bitcoin users' software programs. The file includes all ''blocks'' that have been solved by miners and is updated to include new blocks as they are solved. As each newly solved block refers back to and ''connects'' with the immediately prior solved block, the addition of a new block adds to the Blockchain in a manner similar to a new link being added to a chain. Because each new block records outstanding bitcoin transactions, and outstanding transactions are settled and validated through such recording, the Blockchain represents a complete, transparent and unbroken history of all transactions on the Bitcoin Network.

Bitcoins are ''stored'' or reflected on the Blockchain. The Blockchain records the transaction history of all bitcoins in existence and, through the transparent reporting of transactions, allows the Bitcoin Network to verify the association of each bitcoin with the digital wallet that owns them. The Bitcoin Network and bitcoin software programs can interpret the Blockchain to determine the exact bitcoin balance of any digital wallet listed in the Blockchain as having taken part in a transaction on the Bitcoin Network.

In order to own, transfer or use bitcoins, a person generally must have internet access to connect to the Bitcoin Network. Bitcoin transactions between parties occur rapidly (typically between a few seconds and a few minutes) and may be made directly between end-users without the need for a third-party intermediary, although there are entities that provide third-party intermediary services. To prevent the possibility of double-spending a single bitcoin, each transaction is recorded, time stamped and publicly displayed in a block in the publicly available Blockchain. Thus, the Bitcoin Network provides confirmation against double-spending by memorializing every transaction in the Blockchain, which is publicly accessible and downloaded in part or in whole by all users' Bitcoin Network software programs as described above.

The Bitcoin Network is decentralized and does not rely on either governmental authorities or financial institutions to create, transmit or determine the value of bitcoins. Rather, bitcoins are created and allocated by the Bitcoin Network protocol through a ''mining'' process subject to a strict, well-known issuance schedule. The value of bitcoins is determined by the supply of and demand for bitcoins in the bitcoin exchange market (and in private end-user-to-end-user transactions), as well as the number of merchants that accept them. As bitcoin transactions can be broadcast to the Bitcoin Network by any user's bitcoin software and bitcoins can be transferred without the involvement of intermediaries or third parties, there are little or no transaction costs in direct peer-to-peer transactions on the Bitcoin Network. Third-party service providers such as Bitcoin Exchanges and bitcoin third-party payment processing services may charge significant fees for processing transactions and for converting, or facilitating the conversion of, bitcoins to or from fiat currency.

''Off-Blockchain transactions'' involve the transfer of control over, or ownership of, a specific digital wallet holding bitcoins, or of the reallocation of ownership of certain bitcoins in a pooled-ownership digital wallet, such as a digital wallet owned by a Bitcoin Exchange. Off-Blockchain transactions are not truly bitcoin transactions in that they do not involve the transfer of transaction data on the Bitcoin Network and do not reflect a movement of bitcoins between addresses recorded in the Blockchain. Information and data regarding Off-Blockchain transactions are generally not publicly available in contrast to ''true'' bitcoin transactions, which are publicly recorded on the Blockchain. Off-Blockchain transactions are subject to risks as any such transfer of bitcoin ownership is not protected by the protocol behind the Bitcoin Network or recorded in and validated through the Blockchain mechanism.

Overview of Bitcoin Transactions

Prior to engaging in bitcoin transactions, a user must first obtain a digital bitcoin ''wallet'' (analogous to a bitcoin account) in which to store bitcoins. A wallet can be obtained, among other ways, through an open-source software program that generates bitcoin addresses and enables users to engage in the transfer of bitcoins with other users. A user may install a bitcoin software program on a computer or mobile device that will generate a bitcoin wallet or, alternatively, a user may retain a third party to create a digital wallet to be used for the same purpose. There is no limit on the number of digital wallets a user can have, and each such wallet includes one or more unique addresses and a verification system for each address consisting of a ''public key'' and a ''private key,'' which are mathematically related.

In a typical bitcoin transaction, the bitcoin recipient must provide the spending party with the recipient's digital wallet address, an identifying series of 27 to 34 alphanumeric characters that represents the wallet's routing number on the Bitcoin Network and allows the Blockchain to record the

[14] The Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by TradeBlock, Inc. (''Index Provider''). According to the Registration Statement, Digital Currency Group, Inc. owns approximately 2.4% of the Index Provider's voting equity and warrants representing approximately 1.4% of the Index Provider's voting equity. See ''Bitcoin Index Price'' below.

sending of bitcoins to the recipient's wallet. The receiving party can provide this address to the spending party in alphanumeric format or an encoded format such as a Quick Response Code (commonly known as a QR Code), which may be scanned by a smartphone or other device to quickly transmit the information. This activity is analogous to a recipient providing an address in wire instructions to the payor so that cash may be wired to the recipient's account.

After the provision of the receiving wallet's digital address, the spending party must enter the address into its bitcoin software program along with the number of bitcoins to be sent. The number of bitcoins to be sent will typically be agreed upon between the two parties based on a set number of bitcoins or an agreed upon conversion of the value of fiat currency to bitcoins. Most bitcoin software programs also allow, and often suggest, the payment of a transaction fee (also known as a miner's fee). Transaction fees are not required to be included by many bitcoin software programs, but, when they are included, they are paid by the spending party on top of the specified amount of bitcoins being sent in the transaction. Transaction fees, if any, are typically a fractional number of bitcoins (for example, 0.005 or 0.0005 bitcoins) and are automatically transferred by the Bitcoin Network to the bitcoin miner that solves and adds the block recording the spending transaction on the Blockchain.

After the entry of the receiving wallet's address, the number of bitcoins to be sent and the transaction fees, if any, to be paid, the spending party will transmit the spending transaction. The transmission of the spending transaction results in the creation of a data packet by the spending party's bitcoin software program. The data packet includes data showing (i) the receiving wallet's address, (ii) the number of bitcoins being sent, (iii) the transaction fees, if any, and (iv) the spending party's digital signature, verifying the authenticity of the transaction. The data packet also includes references called ''inputs'' and ''outputs,'' which are used by the Blockchain to identify the source of the bitcoins being spent and record the flow of bitcoins from one transaction to the next transaction in which the bitcoins are spent. The digital signature exposes the spending party's digital wallet address and public key to the Bitcoin Network, though, for the receiving party, only its digital wallet address is revealed. The spending party's bitcoin software will transmit the data packet onto the decentralized Bitcoin Network, resulting in the propagation of the information among the software programs of bitcoin users across the Bitcoin Network for eventual inclusion in the Blockchain. Typically, the data will spread to a vast majority of bitcoin miners within the course of less than one minute.

Bitcoin miners record transactions when they solve for and add blocks of information to the Blockchain. When a miner solves for a block, it creates that block, which includes data relating to (i) the solution to the block, (ii) a reference to the prior block in the Blockchain to which the new block is being added and (iii) all transactions that have occurred but have not yet been added to the Blockchain. The miner becomes aware of outstanding, unrecorded transactions through the data packet transmission and propagation discussed above. Typically, bitcoin transactions will be recorded in the next chronological block if the spending party has an internet connection and at least one minute has passed between the transaction's data packet transmission and the solution of the next block. If a transaction is not recorded in the next chronological block, it is usually recorded in the next block thereafter.

Bitcoin transactions that are micropayments (typically, less than 0.01 bitcoins) and that do not include transaction fees to miners are currently deprioritized for recording, meaning that, depending on bitcoin miner policies, these transactions may take longer to record than typical transactions if the transactions do not include a transaction fee. Additionally, transactions initiated by spending wallets with poor connections to the Bitcoin Network (*i.e.,* few or poor quality connections to nodes or ''supernodes'' that relay transaction data) may be delayed in the propagation of their transaction data and, therefore, transaction recording on the Blockchain. Finally, to the extent that a miner chooses to limit the transactions it includes in a solved block (whether by the payment of transaction fees or otherwise), a transaction not meeting that miner's criteria will not be included.

To the extent that a transaction has not yet been recorded, there is a greater chance that the spending wallet can double-spend the bitcoins sent in the original transaction. If the next block solved is by an honest miner not involved in the attempt to double-spend bitcoin and if the transaction data for both the original and double-spend transactions have been propagated onto the Bitcoin Network, the transaction that is received with the earlier time stamp will be recorded by the solving miner, regardless of whether the double-spending transaction includes a larger transaction fee. If the double-spend transaction propagates to the solving miner and the original transaction has not, then the double-spending has a greater chance of success. As a result of the high difficulty in successfully initiating a double-spend without the assistance of a coordinated attack, the probability of success for a double-spend transaction attempt is limited.

Upon the addition of a block included in the Blockchain, the bitcoin software program of both the spending party and the receiving party will show confirmation of the transaction on the Blockchain and reflect an adjustment to the bitcoin balance in each party's digital wallet, completing the bitcoin transaction. Typically, bitcoin software programs will automatically check for and display additional confirmations of six or more blocks in the Blockchain.

To ensure the integrity of bitcoin transactions from the recipient's side (*i.e.,* to prevent double-spending by a payor), every bitcoin transaction is broadcast to the Bitcoin Network and recorded in the Blockchain through the mining process, which time-stamps the transaction and memorializes the change in the ownership of the bitcoin(s) transferred. Adding a block to the Blockchain requires bitcoin miners to exert significant computational effort to verify it is a valid transaction. According to the Registration Statement, requiring this computational effort, or ''proof of work,'' prevents a malicious actor from either adding fraudulent blocks to generate bitcoins (*i.e.,* counterfeit bitcoins) or overwriting existing valid blocks to reverse its prior transactions.

A transaction in bitcoins between two parties is recorded in the Blockchain in a block only if that block is accepted as valid by a majority of the nodes on the Bitcoin Network. Validation of a block is achieved by confirming the cryptographic ''hash value'' included in the block's solution and by the block's addition to the longest confirmed Blockchain on the Bitcoin Network. For a transaction, inclusion in a block on the Blockchain constitutes a ''confirmation'' of the bitcoin transaction. As each block contains a reference to the immediately preceding block, additional blocks appended to and incorporated into the Blockchain constitute additional confirmations of the transactions in such prior blocks, and a transaction included in a block for the first time is confirmed once against double-spending. The layered confirmation process makes changing

historical blocks (and reversing transactions) exponentially more difficult the further back one goes in the Blockchain. Bitcoin Exchanges and users can set their own threshold as to how many confirmations are required until funds from the transferor are considered valid. However, statistically speaking, a transaction is virtually final after six confirmations as it would be extremely difficult to challenge the validity of the transaction at that point.

According to the Registration Statement, at this point in the evolution of the Bitcoin Network, bitcoin transactions are considered irreversible. Once a transaction appears in the Blockchain, no one has the authority to reverse it. If someone were to attempt to undo a past transaction in a block recorded on the Blockchain, such individual would have to exert tremendous processing power in a series of complicated transactions that may not be achieved at this point in the Bitcoin Network's development.

Bitcoin Security and Storage

According to the Registration Statement, all transactions on the Bitcoin Network are secured using public-key cryptography, a technique which underpins many online transactions. Public-key cryptography works by generating two mathematically related keys (one a public key and the other a private key). One of these, the private key, is retained in the individual's digital wallet and the other key is made public and serves as the address to which bitcoin(s) can be transferred and from which money can be transferred by the owner of the bitcoin wallet. In the case of bitcoin transactions, the public key is an address (a string of letters and numbers) that is used to encode payments, which can then only be retrieved with its associated private key, which is used to authorize the transaction. In other words, the payor uses his private key to approve any transfers to a recipient's account. Users on the Bitcoin Network can confirm that the user signed the transaction with the appropriate private key, but cannot reverse engineer the private key from the signature.

According to the Registration Statement, the Custodian is responsible for keeping the private key or keys that provide access to the Trust's digital wallets and vaults secure. Pursuant to a request from the Sponsor or the Trust, the Custodian will establish and maintain an account with one or more wallets (''Wallet Account'') and one or more cold-storage vault accounts (''Vault Account'' and, together with the Wallet Account and any subaccounts associated therewith, the ''Bitcoin Account'') in the name of the Sponsor and the Trust. The Custodian deposits and withdraws bitcoins to and from the Bitcoin Account at the instruction of the Sponsor. The Custodian is responsible for administering the Bitcoin Account.

The Bitcoin Account is maintained by the Custodian and cold storage mechanisms are used for the Vault Account by the Custodian. Each digital wallet of the Trust may be accessed using its corresponding private key. The Custodian's custodial operations maintain custody of the private keys that have been deposited in cold storage at its various vaulting premises which are located in geographically dispersed locations across the world, including but not limited to the United States, Europe (including Switzerland) and South America. According to the Registration Statement, the locations of the vaulting premises change regularly and are kept confidential by the Custodian for security purposes.

The term ''cold storage'' refers to a safeguarding method by which the private keys corresponding to bitcoins stored on a digital wallet are removed from any computers actively connected to the internet. Cold storage of private keys may involve keeping such wallet on a non-networked computer or electronic device or storing the public key and private keys relating to the digital wallet on a storage device (for example, a USB thumb drive) or printed medium (for example, papyrus or paper) and deleting the digital wallet from all computers. According to the Registration Statement, most of the private keys in the Wallet Account and all of the private keys in the Vault Account are kept in cold storage. A digital wallet may receive deposits of bitcoins but may not send bitcoins without use of the bitcoins' corresponding private keys. In order to send bitcoin from a digital wallet in which the private keys are kept in cold storage, either the private keys must be retrieved from cold storage and entered into a bitcoin software program to sign the transaction, or the unsigned transaction must be sent to the ''cold'' server in which the private keys are held for signature by the private keys. At that point, the user of the digital wallet can transfer its bitcoins.

According to the Registration Statement, the Custodian is the custodian of the Trust's private keys and will utilize certain security procedures such as algorithms, codes, passwords, encryption or telephone call-backs in the administration and operation of the Trust and the safekeeping of its bitcoins and private keys. The Custodian has created a Vault Account for the Trust assets in which private keys are placed in cold storage. According to the Registration Statement, the Custodian segregates the private keys stored with it from any other assets it holds or holds for others.

According to the Registration Statement, multiple distinct private keys must sign any transaction in order to transfer the Trust's bitcoins from a multi-signature address to any other address on the Bitcoin blockchain. Distinct private keys required for multi-signature address transfers reside in geographically dispersed vault locations. The Custodian refers to these vault locations, where transactions are signed by private keys, as ''signing vaults.'' In addition to multiple signing vaults, the Custodian maintains multiple ''back-up vaults'' in which backup private keys are stored. According to the Registration Statement, in the event that one or more of the ''signing vaults'' were to be compromised, back-up vaults can be activated and used as signing vaults to complete a transaction within 72 hours.

Therefore, according to the Registration Statement, if any one signing vault were to be compromised, it would have no impact on the ability of the Trust to access its bitcoins, other than a possible delay in operations of 72 hours, while one or more of the back-up vaults was transitioned to a signing vault. According to the Registration Statement, these security procedures ensure that there is no single point of failure in the protection of the Trust's assets.

The Custodian is authorized to accept, on behalf of the Trust, deposits of bitcoins from ''Authorized Participant Self-Administered Accounts'' (as defined below) or ''Liquidity Provider Accounts'' (as defined below), as applicable, held with the Custodian and transfer such bitcoins into the Bitcoin Account. Deposits of bitcoins will be immediately available to the Trust to the extent such bitcoins have not already been transferred to the Vault Account. Bitcoins transferred to the Bitcoin Account will be directly deposited into digital wallets for which the keys are already in cold storage.

According to the Registration Statement, if bitcoins need to be withdrawn from the Trust in connection with a redemption, the Custodian will ensure that the private keys to those bitcoins sign the withdrawal transaction.

Bitcoin Mining and Creation of New Bitcoins

According to the Registration Statement, the process by which bitcoins are created and bitcoin transactions are verified is called mining.[15] To begin mining, a miner can download and run a mining client, which, like regular Bitcoin Network software programs, turns the user's computer into a ''node'' on the Bitcoin Network that validates blocks. Bitcoin transactions are recorded in new blocks that are added to the Blockchain and new bitcoins being issued to the miners. Miners, through the use of the bitcoin software program, engage in a set of prescribed complex mathematical calculations in order to add a block to the Blockchain and thereby confirm bitcoin transactions included in that block's data.

In order to add blocks to the Blockchain, a miner must map an input data set (*i.e.,* the Blockchain, plus a block of the most recent Bitcoin Network transactions and an arbitrary number called a ''nonce'') to a desired output data set of a predetermined length, *i.e.,* a hash value, using the SHA–256 cryptographic hash algorithm. Each unique block can only be solved and added to the Blockchain by one miner; therefore, all individual miners and mining pools on the Bitcoin Network are engaged in a competitive process of constantly increasing their computing power to improve their likelihood of solving for new blocks. According to the Registration Statement, as more miners join the Bitcoin Network and its processing power increases, the Bitcoin Network adjusts the complexity of the block-solving equation to maintain a predetermined pace of adding a new block to the Blockchain approximately every ten minutes.

A miner's proposed block is added to the Blockchain once a majority of the nodes on the Bitcoin Network confirms the miner's work. Miners that are successful in adding a block to the Blockchain are automatically awarded bitcoins for their effort plus any transaction fees paid by transferors whose transactions are recorded in the block. This reward system is the method by which new bitcoins enter into circulation to the public.

The supply of new bitcoins is mathematically controlled in a manner so that the number of bitcoins grows at a limited rate pursuant to a pre-set schedule. The number of bitcoins awarded for solving a new block is automatically halved after every 210,000 blocks are added to the Blockchain. Recently, in July 2016, the fixed reward for solving a new block decreased from 25 bitcoins to 12.5 bitcoins per block and this is expected to decrease by half to become 6.25 bitcoins after the next 210,000 blocks have entered the Bitcoin Network, which is expected to be July 2020. This deliberately controlled rate of bitcoin creation means that the number of bitcoins in existence will increase at a controlled rate until the number of bitcoins in existence reaches the pre-determined 21 million bitcoins. According to the Registration Statement, as of March 15, 2017, approximately 16.22 million bitcoins have been mined, and estimates of when the 21 million bitcoin limitation will be reached range up to the year 2140.

Bitcoin Exchanges

According to the Registration Statement, due to the peer-to-peer framework of the Bitcoin Network and the protocols thereunder, transferors and recipients of bitcoins are able to determine the value of the bitcoins transferred by mutual agreement or barter with respect to their transactions. As a result, the most common means of determining the value of a bitcoin is by surveying one or more Bitcoin Exchanges where bitcoins are bought, sold and traded. On each Bitcoin Exchange, bitcoins are traded with publicly disclosed valuations for each transaction, measured by one or more fiat currencies such as the U.S. dollar or the Chinese yuan.

According to the Registration Statement, historically, a large percentage of the global trading volume occurred on self-reported, unregulated exchanges located in China. In January 2017, some of the largest China-based Bitcoin Exchanges implemented certain adjustments to their terms, including the introduction of a 0.2% fixed-rate transaction fee for all bitcoin buy and sell orders. In February 2017, certain smaller China-based Bitcoin Exchanges also imposed or increased trading fees on their respective exchanges. In the subsequent weeks, some of the largest China-based Bitcoin Exchanges halted bitcoin withdrawals. According to the Registration Statement, these events have substantially reduced the volume traded on Chinese exchanges and changed the global liquidity profile for bitcoins.

For example, according to the Registration Statement, from May 10, 2015 to January 24, 2017, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 billion bitcoins and an average daily trade volume of 2.16 million bitcoins, comprising more than 95% of the global exchange-traded volume based on data from the Index Provider. According to the Registration Statement, during this period, the exchanges that comprised the Index, reported a total trade volume of 33.03 million bitcoins and an average daily trade volume of approximately 53,000 bitcoins, accounting for approximately 2.3% of the global exchange-traded volume and 78.5% of the U.S. dollar-denominated trade volume.

However, according to the Registration Statement, from January 25, 2017 to March 15, 2017, following the introduction of fixed-rate transaction fees in response, the three primary China-based Bitcoin Exchanges, BTCC, Huobi and OKCoin, reported a total trade volume of approximately 1.35 million bitcoins and an average daily trade volume of approximately 27,000 bitcoins, comprising only 25.2% of the global exchange-traded volume based on data from the Index Provider. During this period, the exchanges that comprised the Index, reported a total trade volume of approximately 1.89 million bitcoins and an average daily trade volume of nearly 39,000 bitcoins, accounting for 35.2% of the global exchange-traded volume and 73.6% of the U.S. dollar-denominated trade volume.

According to the Registration Statement, similar to other currency pairs, such as euro to bitcoin, movements in pricing on the Chinese exchanges are generally in line with U.S. dollar-denominated exchanges. For example, according to the Registration Statement, based on data from the Index Provider, from May 10, 2015 to March 15, 2017, the 4:00 p.m., Eastern Time (''E.T.''), spot price on the three primary Chinese yuan-denominated exchanges (BTC China, Huobi and OKCoin) differed from the ''Bitcoin Index Price'' (as defined below) by only 1.6% on average.

According to the Registration Statement, bitcoin price indexes have also been developed by a number of service providers in the bitcoin space. For example, Coindesk, a digital currency content provider and wholly-owned subsidiary of Digital Currency Group, launched a proprietary bitcoin price index in September 2013, and *bitcoinaverage.com* provides an average of all bitcoin prices on several Bitcoin Exchanges. The Sponsor uses the Index calculated by the Index Provider to determine the ''Bitcoin Index Price,'' as described below under ''Bitcoin Index Price.''

[15] None of the Trust, Sponsor or Genesis currently participates in mining or has plans to engage in mining in the future.

Currently, there are numerous Bitcoin Exchanges operating worldwide in a number of currency pairs including, among others, bitcoin to U.S. dollar, bitcoin to euro, bitcoin to Chinese yuan and bitcoin to Indian rupee. According to the Registration Statement, most of the data with respect to prevailing valuations of bitcoin come from such Bitcoin Exchanges. These exchanges include established exchanges such as Bitstamp, GDAX and Bitfinex, which provide a number of options for buying and selling bitcoins. Among the Bitcoin Exchanges eligible for inclusion in the Index, domicile, regulation and legal compliance varies.

The table below sets forth (1) the aggregate number of bitcoin trades made on the eight largest U.S. dollar-denominated Bitcoin Exchanges by trade volume from May 10, 2015 to March 15, 2017 and (2) the market share of trade volume of each such Bitcoin Exchange.

Eight largest U.S. dollar-denominated bitcoin exchanges by trade volume [16]	Volume (BTC) [17] [18]	Market share (percent)
Bitcoin Exchanges included in the Index as of March 15, 2017:		
Bitfinex	13,953,081	32.10
BitStamp	6,447,743	14.83
GDAX (formerly known as Coinbase Exchange)	4,874,681	11.22
ItBit	3,275,893	7.54
Total U.S. dollar-bitcoin trade volume included in the Index as of March 15, 2017	28,551,399	65.69
Bitcoin Exchanges not included in the Index as of March 15, 2017:		
OKCoin	6,444,440	14.83
BTC–E	4,643,767	10.68
LakeBTC	2,978,524	6.85
Gemini	846,464	1.95
Total U.S. dollar-bitcoin trade volume not included in the Index as of March 15, 2017	14,913,196	34.31
Total U.S. dollar-bitcoin trade volume	43,464,594	100.00

Information regarding each Bitcoin Exchange may be found, where available, on the Web sites for such Bitcoin Exchanges, among other places.

Off-Exchange Bitcoin Trading

According to the Registration Statement, in addition to open online Bitcoin Exchanges, there are ''dark pools,'' which are bitcoin trading platforms that do not publicly report bitcoin trade data. Market participants have the ability to execute large block trades on a dark pool without revealing those trades and the related price data to the public bitcoin exchange market, although any withdrawal from or deposit to a dark pool platform may be recorded on the Blockchain.[19]

Bitcoin may also be traded over-the-counter (''OTC''). OTC trades are not required to be reported through any facilities. However, according to the Sponsor, based on publicly available information, OTC trading may not represent a material volume of overall bitcoin trading. The OTC markets operate in a similar manner to dark pools. However, typically, OTC trades are institutional size block transactions (though on a much lower scale relative to the size of block transactions for other commodities or industries) or transactions made on behalf of high-net worth individuals.

According to the Sponsor, some OTC intermediaries that facilitate OTC trading, such as Genesis and itBit, provide summary statistics on an ad hoc basis. For instance, in April 2016, itBit reported that it had traded approximately 25,500 bitcoins, valued at approximately $10.3 million U.S. dollars, which would account for roughly 1.94% of the bitcoin trading volume across the eight highest volume U.S. dollar-denominated exchanges. For the fourth quarter of 2016, Genesis reported trading approximately 70,326 bitcoins, valued at approximately $51.4 million U.S. dollars. According to the Sponsor, the reported Genesis volume would comprise roughly 2.33% of the trading volume across the eight highest volume U.S. dollar-denominated exchanges during that time period.

Bitcoin Price Volatility [20]

According to the Sponsor, volatility in bitcoin was pronounced in its earliest days through late 2013. According to the Sponsor, during that time period, almost all bitcoin trading activity centered on two exchanges, which centralized the global order book and led to large price movements. Since then, the bitcoin trading environment has matured with the development of dozens of exchanges around the world, resulting in more transparency with respect to bitcoin pricing, in increased trading volume and in greater liquidity. Additionally, the globalization of bitcoin exchanges, ranging from those domiciled in the United States to other areas of the globe, such as China, has led to development of many bitcoin currency pairs, garnering more market participants. Today, the largest trading pairs are bitcoin to Chinese yuan, bitcoin to U.S. dollars and bitcoin to euro.

[16] According to the Registration Statement, although the Bitcoin Exchange, LocalBitcoins, accounts for approximately 3% of the U.S. dollar-bitcoin trade volume, the Sponsor does not consider it an appropriate Bitcoin Exchange to include in this analysis because LocalBitcoins does not have an online electronic trading platform that allows for the prices and volumes of bitcoin traded to be reliably tracked.

[17] According to the Registration Statement, these figures reflect the aggregate number of bitcoins traded on each named U.S. dollar-denominated Bitcoin Exchange from May 10, 2015 to March 15, 2017.

[18] According to the Registration Statement, as of May 10, 2015, Kraken EUR (U.S. dollar equivalent) was a component of the Index but was removed from the Index on May 11, 2015. The transactions on Kraken EUR were not a material component to the Index.

[19] According to the Registration Statement, Genesis operates an OTC trading desk that buys and sells large blocks of bitcoins without publicly reporting trade data. Informal dark pools are currently believed to exist, particularly among wholesale buyers of bitcoin and bitcoin mining groups that obtain large supplies of bitcoin through mining. Such informal dark pools function as a result of the peer-to-peer nature of the Bitcoin Network, which allows direct transactions between any seller and buyer.

[20] Attached as Exhibit 3 hereto are tables relating to: (i) Rolling 3-month volatility of bitcoin and other commodities; (ii) average 3-month correlation of bitcoin to other commodities; (iii) rolling 6-month volatility of bitcoin and other commodities; (iv) average 6-month correlation of bitcoin to other commodities; (v) rolling 12-month volatility of bitcoin and other commodities; and (vi) average 12-month correlation of bitcoin to other commodities.

Bitcoin price volatility has declined since the inception of bitcoin. According to the Sponsor and as detailed in Exhibit 3, recent figures, such as the three, six and twelve-month volatility charts, show that the volatility of bitcoin is now at levels comparable to those seen for other commodities such as natural gas and continues to trend downward.

According to the Sponsor, while bitcoin price volatility has declined and its volatility approximately corresponds to that of certain commodities, the volatility of bitcoin is not correlated with the volatility of other commodities over shorter- (*i.e.,* three to six months) and longer-term (*i.e.,* longer than one year) investment horizons, reinforcing the important role bitcoin can play as a diversifying asset in an investor's portfolio.

Demand for Bitcoin

According to the Sponsor, demand for bitcoins is based on several factors. Demand may be based on speculation regarding the future appreciation of the value of bitcoins. Continuing development of various applications utilizing the Bitcoin Network for uses such as remittance, payment for goods and services, recording transfer of ownership of certain assets and settlement of both financial and non-financial assets have led many investors to speculate that the price of bitcoins will appreciate as use of these applications increases. As additional applications are developed, demand may increase. Additionally, some investors have developed analogs between bitcoin and other scarce assets such as gold. Bitcoin shares many of the same characteristics as gold, *e.g.,* scarcity, but has superior utility, portability and divisibility. If investors shift a portion of their asset allocations from gold to bitcoin, the demand for bitcoins could increase. Furthermore, bitcoins are used in day-to-day transactions for the purchase of goods and services. As additional merchants continue to accept bitcoins for the purchase of goods and services, demand for bitcoins may increase. Relatedly, as merchants accept bitcoins for sales of goods and services, supply of bitcoins could increase on the exchange markets as these merchants look to liquidate their bitcoin for fiat currencies.

Bitcoin Index Price

The ''Bitcoin Index Price'' is the U.S. dollar value of a bitcoin as represented by the Index, calculated at 4:00 p.m., E.T., on each business day. If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider in order to obtain the Bitcoin Index Price. If after such contact the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Administrator will utilize the following cascading set of rules to calculate the Bitcoin Index Price. For the avoidance of doubt, the Sponsor will employ the below rules sequentially and in the order presented below, should one or more specific rule(s) fail:

(i) Bitcoin Index Price = The price set by the Index as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, the Index is a U.S. dollar-denominated composite reference rate for the price of bitcoin based on the volume-weighted price at trading venues selected by the Index Provider. Trading venues used to calculate the Index may include Bitcoin Exchanges, OTC markets or derivative platforms. According to the Registration Statement, to ensure that the Index Provider's trading venue selection process is impartial, the Index Provider considers depth of liquidity, compliance with applicable legal and regulatory requirements, data availability, U.S. domicile and acceptance of U.S. dollar deposits. The Index Provider conducts a quarterly review of these criteria. According to the Registration Statement, as of the date of the Registration Statement, the eligible Bitcoin Exchanges selected by the Index Provider include Bitfinex, Bitstamp, GDAX (formerly known as Coinbase Exchange) and itBit.[21] Bitfinex is a trading platform based in Hong Kong for digital currencies, including bitcoin, that offers many advanced features such as margin and exchange trading and margin funding. Bitstamp is a European Union-based bitcoin marketplace that enables people from all around the world to safely buy and sell bitcoins. GDAX, based in San Francisco, California, is a digital currency exchange. itBit is a New York City-based, regulated global exchange that offers retail and institutional investors a powerful platform to buy and sell bitcoin. According to the Registration Statement, in the calculation of the Bitcoin Index Price, the Index Provider cleanses the trade data and compiles it in such a manner as to algorithmically reduce the impact of anomalistic or manipulative trading. This is accomplished by adjusting the weight of each input based on price deviation relative to the observable set of data for the relevant trading venue, as well as recent and long-term trading volume at each venue relative to the observable set for the relevant trading venues. The Index Provider reduces the weighting of data inputs as they get further from the mean price across the trading venues and ultimately excludes any trade with a price that deviates beyond a certain predetermined threshold level from the mean. In addition, the Index groups ''trade bursts'' (*i.e.,* a group of small-size trades in a short period of time, typically under one second) and movements during off-peak trading hours on any given venue into single data inputs, which reduces the potentially erratic price movements caused by small, individual orders. The Index Provider formally reevaluates the weighting algorithm quarterly, but maintains discretion to change the way in which the Index is calculated based on its periodic review or in extreme circumstances. The precise formula underlying the Index is proprietary.

According to the Registration Statement, the Index Provider does not currently include data from OTC markets or derivative platforms. OTC data is not currently included because of the potential for trades to include a significant premium or discount paid for larger liquidity, which creates an uneven comparison relative to more active markets. There is also a higher potential for OTC transactions to not be arms-length and thus not be representative of a true market price. Bitcoin derivative markets are also not currently included as the markets remain relatively thin. According to the Registration Statement, the Index Provider will consider International Organization of Securities Commissions (''IOSCO'') principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

According to the Registration Statement, to calculate the Bitcoin Index Price, the weighting algorithm is applied to the price and volume of all inputs for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date. According to the Registration Statement, to measure volume data and trading halts, the Index Provider monitors trading activity and regards as eligible those Bitcoin Exchanges that it determines represent a substantial portion of U.S. dollar-denominated trading over a sustained

[21] According to the Registration Statement, Digital Currency Group owns a minority interest in Coinbase, which operates the GDAX, representing approximately 0.5% of its equity and a minority interest in Paxos, which operates itBit, representing less than 0.3% of its equity.

period on a platform without a significant history of trading disruptions. The Index Provider maintains a monitoring system that tests for these criteria on an ongoing basis.

The description of the Index is based on information publicly available at the Index Provider's Web site at *https://tradeblock.com/markets/index/.* The Index spot price will be available on the Index Provider's Web site and/or from one or more major market data vendors.

If the Index becomes unavailable, or if the Sponsor determines in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Index Provider to obtain the Bitcoin Index Price directly from the Index Provider. If after such contact, the Index remains unavailable or the Sponsor continues to believe in good faith that the Index does not reflect an accurate bitcoin value, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

(ii) Bitcoin Index Price = The volume-weighted average bitcoin price for the immediately preceding 24-hour period as of 4:00 p.m., E.T., on the valuation date as calculated based upon the volume-weighted average bitcoin prices of the Major Bitcoin Exchanges as published by an alternative third party's public data feed that the Sponsor believes is accurately and reliably providing market data (*i.e.,* is receiving up-to-date and timely market data from constituent exchanges) (''Second Source''). ''Major Bitcoin Exchanges'' are those Bitcoin Exchanges that are online, trade on a 24-hour basis and make transaction price and volume data publicly available. Subject to the next sentence, if the Second Source becomes unavailable (for example, data sources from the Second Source for bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Second Source does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Second Source in an attempt to obtain the relevant data. If after such contact the Second Source remains unavailable or the Sponsor continues to believe in good faith that the Second Source does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

(iii) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Major Bitcoin Exchanges by (b) the total number of bitcoins traded on the Major Bitcoin Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date as published by a third party's public data feed that the Sponsor believes is accurately and reliably providing market data (*i.e.,* is receiving up-to-date and timely market data from eligible exchanges), subject to the requirement that such data is calculated based upon a volume-weighted average bitcoin price obtained from the Major Bitcoin Exchanges (''Third Source''). Subject to the next sentence, if the Third Source becomes unavailable (for example, data sources from the Third Source become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Third Source does not reflect an accurate bitcoin price, then the Sponsor will, on a best efforts basis, contact the Third Source in an attempt to obtain the relevant data. If after such contact the Third Source remains unavailable or the Sponsor continues to believe in good faith that the Third Source does not reflect an accurate bitcoin value then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

(iv) Bitcoin Index Price = The volume-weighted average bitcoin price as calculated by dividing (a) the U.S. dollar value of the bitcoin transactions on the Bitcoin Benchmark Exchanges by (b) the total number of bitcoins traded on the Bitcoin Benchmark Exchanges, in each case for the 24-hour period from 4:00 p.m., E.T. (or as soon as practicable thereafter), on the business day prior to the valuation date to 4:00 p.m., E.T. (or as soon as practicable thereafter), on the valuation date. A ''Bitcoin Benchmark Exchange'' is a Bitcoin Exchange that represents at least 25% of the aggregate U.S. dollar-denominated trading volume of the bitcoin market during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and regulations, including any anti-money laundering (''AML'') and know-your-customer (''KYC'') procedures, of such Bitcoin Exchange's applicable jurisdiction; provided that if there are fewer than three such Bitcoin Exchanges, then the Bitcoin Benchmark Exchanges will include such Bitcoin Exchange or Bitcoin Exchanges that meet the above-described requirements as well as one or more additional Bitcoin Exchanges, selected by the Sponsor, that have had monthly trading volume of at least 50,000 bitcoins during the last 30 consecutive calendar days and that to the knowledge of the Sponsor is in substantial compliance with the laws, rules and regulations, including any AML and KYC procedures, of such Bitcoin Exchange's applicable jurisdiction.

The Sponsor will review the composition of the exchanges that comprise the Bitcoin Benchmark Exchanges at the beginning of each month, or more frequently if necessary, in order to ensure the accuracy of its composition. Subject to the next sentence, if one or more of the Bitcoin Benchmark Exchanges become unavailable (for example, data sources from the Bitcoin Benchmark Exchanges of bitcoin prices become unavailable, unwieldy or otherwise impractical for use), or if the Sponsor determines in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin value, then the Sponsor will, on a best efforts basis, contact the Bitcoin Benchmark Exchange that is experiencing the service outages in an attempt to obtain the relevant data. If after such contact one or more of the Bitcoin Benchmark Exchanges remain unavailable or the Sponsor continues to believe in good faith that the Bitcoin Benchmark Exchange does not reflect an accurate bitcoin price, then the Sponsor will employ the next rule to determine the Bitcoin Index Price.

(v) Bitcoin Index Price = The Sponsor will use its best judgment to determine a good faith estimate of the Bitcoin Index Price.

Data used for the above calculation of the Bitcoin Index Price is gathered by the Administrator or its delegate who calculates the Bitcoin Index Price each business day as of 4:00 p.m., E.T., or as soon thereafter as practicable. The Administrator will disseminate the Bitcoin Index Price each business day.

The Index Provider may change the trading venues that are used to calculate the Index, or otherwise change the way in which the Index is calculated at any time. The Index Provider does not have any obligation to consider the interests of the Sponsor, the Administrator, the Trust, the shareholders or anyone else in connection with such changes. The Index Provider is not required to publicize or explain the changes, or to alert the Sponsor or the Administrator to such changes. The Index Provider will consider IOSCO principles for financial benchmarks and the management of trading venues of bitcoin derivatives when considering inclusion of OTC or derivative platform data in the future.

Bitcoin Holdings

According to the Registration Statement, the Trust's assets will consist

solely of bitcoin. The Administrator will determine the value of the Trust for operational purposes (herein referred to as ''Bitcoin Holdings''), which is the aggregate U.S. dollar value, based on the Bitcoin Index Price, of the Trust's bitcoins less its liabilities, on each day the Shares trade on the Exchange as of 4:00 p.m. E.T., or as soon thereafter as practicable.[22] The Administrator will also determine the Bitcoin Holdings per Share, which equals the Trust's Bitcoin Holdings divided by the number of outstanding Shares. The Sponsor will publish the Bitcoin Holdings and the Bitcoin Holdings per Share each business day at 4:00 p.m., E.T., or as soon thereafter as practicable at the Trust's Web site at *https://grayscale.co/bitcoin-investment-trust/#market-performance.*

To calculate the Bitcoin Holdings, the Administrator will determine the Bitcoin Index Price and multiply the Bitcoin Index Price by the aggregate number of bitcoins owned by the Trust as of 4:00 p.m., E.T., on the immediately preceding day. The Administrator will add the U.S. dollar value of any bitcoins, as calculated using the Bitcoin Index Price, receivable under pending creation orders, if any, determined by multiplying the number of creation Baskets represented by such creation orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price. The Administrator will subtract (i) the U.S. dollar value of the bitcoins, as calculated using the Bitcoin Price Index, constituting any accrued but unpaid fees, (ii) the U.S. dollar value of the bitcoins to be distributed under pending redemption orders, determined by multiplying the number of redemption Baskets represented by such redemption orders by the Basket Bitcoin Amount and then multiplying such product by the Bitcoin Index Price and (iii) certain expenses of the Trust.

The Sponsor will publish the Bitcoin Index Price, the Bitcoin Holdings and the Bitcoin Holdings per Share on the Trust's Web site as soon as practicable after its determination. If the Bitcoin Holdings and Bitcoin Holdings per Share have been calculated using a price per bitcoin other than the Bitcoin Index Price, the publication on the Trust's Web site will note the valuation methodology used and the price per bitcoin resulting from such calculation.

While the Trust's investment objective is for the Shares to reflect the performance of the value of a bitcoin as represented by the Index, less the Trust's liabilities and expenses, the Shares may trade in the secondary market at prices that are lower or higher than the Bitcoin Holdings per Share. The amount of the discount or premium in the trading price relative to the Bitcoin Holdings per Share may be influenced by non-concurrent trading hours and liquidity between the secondary market and larger Bitcoin Exchanges in the bitcoin exchange market. While the Shares will be listed and trade on the Exchange from 9:30 a.m. until 4:00 p.m., E.T., liquidity in the global bitcoin markets may fluctuate depending upon the volume and availability of larger Bitcoin Exchanges. As a result, during periods in which bitcoin exchange market liquidity is limited or a major Bitcoin Exchange is off-line, trading spreads, and the resulting premium or discount, on the Shares may widen.

Impact on Arbitrage

Because of the potential for arbitrage inherent in the structure of the Trust, the Sponsor believes that the Shares will not trade at a material discount or premium to the underlying bitcoin held by the Trust. The arbitrage process, which in general provides investors the opportunity to profit from differences in prices of assets, increases the efficiency of the markets, serves to prevent potentially manipulative efforts, and can be expected to operate efficiently in the case of the Shares and bitcoin. If the price of the Shares deviates enough from the price of bitcoin to create a material discount or premium, an arbitrage opportunity is created. If the Shares are inexpensive compared to the bitcoin that underlies them, an arbitrageur may buy the Shares at a discount, immediately redeem them in exchange for bitcoin, and sell the bitcoin in the cash market at a profit. If the Shares are expensive compared to the bitcoin that underlies them, an arbitrageur may sell the Shares short, buy enough bitcoin to acquire the number of Shares sold short, acquire the Shares through the creation process, and deliver the Shares to close out the short position.[23] In both instances, the arbitrageur serves to efficiently correct price discrepancies between the Shares and the underlying bitcoin.

Creation and Redemption of Shares

According to the Registration Statement, the Trust will issue and redeem ''Baskets,'' each equal to a block of 100 Shares, only to Authorized Participants. The size of a Basket is subject to change. The creation and redemption of a Basket require the delivery to the Trust, or the distribution by the Trust, of the number of whole and fractional bitcoins represented by each Basket being created or redeemed, the number of which is determined by dividing the number of bitcoins owned by the Trust at 4:00 p.m., E.T., on the trade date of a creation or redemption order, by the number of Shares outstanding at such time (calculated to one one-hundred-millionth of one bitcoin), as adjusted for the number of whole and fractional bitcoins constituting accrued but unpaid fees and expenses of the Trust and multiplying the quotient obtained by 100 (''Basket Bitcoin Amount''). The Basket Bitcoin Amount multiplied by the number of Baskets being created or redeemed is the ''Total Basket Bitcoin Amount.'' The Basket Bitcoin Amount will gradually decrease over time as the Trust's bitcoins are used to pay the Trust's expenses. According to the Registration Statement, as of the date of the Registration Statement, each Share currently represents approximately 0.093 of a bitcoin.

Authorized Participants are the only persons that may place orders to create and redeem Baskets. Each Authorized Participant must (i) be a registered broker-dealer, (ii) enter into a participant agreement with the Sponsor, the Administrator, the Marketing Agent and the Liquidity Providers (''Participant Agreement'') and (iii) in the case of the creation or redemption of Baskets that do not use the ''Conversion Procedures'' (as defined below), own a bitcoin wallet address that is recognized by the Custodian as belonging to the Authorized Participant (''Authorized Participant Self-Administered Account''). Authorized Participants may act for their own accounts or as agents for broker-dealers, custodians and other securities market participants that wish to create or redeem Baskets. Shareholders who are not Authorized Participants will only be able to redeem their Shares through an Authorized Participant.

Although the Trust will create Baskets only upon the receipt of bitcoins, and will redeem Baskets only by distributing bitcoins, an Authorized Participant may deposit cash with the Administrator, which will facilitate the purchase or sale of bitcoins through a Liquidity

[22] Bitcoin Holdings is different than the GAAP net asset value referenced in the Registration Statement.

[23] The Exchange states that the Trust, which will only hold bitcoin, differs from index-based exchange-traded funds, which may involve a trust holding hundreds or even thousands of underlying component securities, necessarily involving in the arbitrage process movements in a large number of security positions. See, *e.g.,* Securities Exchange Act Release No. 46306 (August 2, 2002) (approving the UTP trading of Vanguard Total Market VIPERs based on the Wilshire 5000 Total Market Index).

Provider on behalf of an Authorized Participant (''Conversion Procedures''). ''Liquidity Providers'' must (i) enter into a Participant Agreement with the Sponsor, the Trust, the Marketing Agent and each Authorized Participant and (ii) own a bitcoin wallet address that is recognized by the Custodian as belonging to a Liquidity Provider (''Liquidity Provider Account'').

The Conversion Procedures will be facilitated by a single Liquidity Provider. On an order-by-order basis, the Sponsor will select the Liquidity Provider that it believes will provide the best execution of the Conversion Procedures, and will base its decision on factors such as the Liquidity Provider's creditworthiness, financial stability, ability to obtain the best price, the timing and speed of execution, liquidity and the likelihood of, and capabilities in, execution, clearance and settlement. In the event that an order cannot be filled in its entirety by a single Liquidity Provider, additional Liquidity Provider(s) will be selected by the Sponsor to fill the remaining amount based on the criteria above.

The trade date on which the Basket Bitcoin Amount is determined is different for in-kind and in-cash orders. For in-kind orders, the trade date is the day on which an order is placed, whereas the trade date for in-cash orders is the day after which an order is placed. This could result in a different execution price for in-kind and in-cash orders.

For example, if an Authorized Participant submits an in-kind order at 2:00 p.m., E.T., on a Monday, the Basket Bitcoin Amount required to purchase a Basket of Shares will be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on that same day. Alternatively, for in-cash orders, if an Authorized Participant submits an order at 2:00 p.m., E.T., on a Monday and pays the requisite Cash Collateral Amount (as defined below) at 3:00 p.m., E.T., on that same date, the Total Basket Bitcoin Amount will nevertheless be determined at 4:00 p.m., E.T., or as soon as practicable thereafter, on Tuesday. Pursuant to the Conversion Procedures, the Authorized Participant is obligated to pay the Cash Exchange Rate (as defined below) which is calculated on Monday, times the Total Basket Bitcoin Amount, which is calculated on Tuesday. The Liquidity Provider is required to deposit the Total Basket Bitcoin Amount as calculated on Tuesday, even if there were a chance [sic] in the price of bitcoin since Monday.

To create Baskets in-kind, Authorized Participants will send the Administrator a creation order on the trade date. In-kind creation orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participant by the Administrator on that same date. The Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., on that date. On the business day following the trade date, the Authorized Participant will transfer the Total Basket Bitcoin Amount to the Custodian. Once the Total Basket Bitcoin Amount is received by the Custodian, the Administrator will instruct the Transfer Agent to deliver the creation Baskets to the Authorized Participant.

To create Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a creation order on the business day preceding the trade date. In-cash creation orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the creation order, and this determination will be communicated to the Authorized Participants by the Administrator on that same date. Upon receiving instruction from the Administrator that a creation order has been accepted by the Marketing Agent, the Authorized Participant will send 110% of the U.S. dollar value of the Total Basket Bitcoin Amount (''Cash Collateral Amount''). The Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., the following day. Once the Cash Collateral Amount is received by the Administrator, the Sponsor will notify the Liquidity Provider of the creation order. The Liquidity Provider will then provide a firm quote to the Authorized Participant for the Total Basket Bitcoin Amount, determined by using the ''Cash Exchange Rate,'' which, in the case of a creation order, is the Index spot price at the time at which the Cash Collateral Amount is received by the Administrator, plus applicable fees. If the Liquidity Provider's quote is greater than the Cash Collateral Amount received, the Authorized Participant will be required to pay the difference. Provided that payment for the Total Basket Bitcoin Amount is received by the Administrator, the Liquidity Provider will deliver the bitcoins to the Custodian on the settlement date on behalf of the Authorized Participant. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it sources the requisite bitcoin for the Total Basket Bitcoin Amount. After the Custodian receives the Total Basket Bitcoin Amount, the Administrator will instruct the Transfer Agent to deliver the Creation Baskets to the Authorized Participant. The Administrator will then send the Liquidity Provider the cash equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, plus applicable fees. The Administrator will return any remaining amount of the Cash Collateral Amount to the Authorized Participant.

To redeem Baskets in-kind, Authorized Participants will send the Administrator a redemption order on the trade date. In-kind redemption orders must be placed no later than 3:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order and the Total Basket Bitcoin Amount will be determined as soon as practicable after 4:00 p.m., E.T., on that same date. On the second business day following the trade date, the Authorized Participant will deliver to the Transfer Agent redemption Baskets from its account. Once the redemption Baskets are received by the Transfer Agent, the Custodian will transfer the Total Basket Bitcoin Amount to the Authorized Participant and the Transfer Agent will cancel the Shares.

To redeem Baskets using the Conversion Procedures, Authorized Participants will send the Administrator a redemption order. In-cash redemption orders must be placed no later than 4:59:59 p.m., E.T., on each business day. The Marketing Agent will accept or reject the redemption order on that same date. A Liquidity Provider will then provide a firm quote to an Authorized Participant for the Total Basket Bitcoin Amount, determined by using the ''Cash Exchange Rate,'' which, in the case of a redemption order, is the Index spot price minus applicable fees at the time at which the Administrator notifies the Authorized Participant that an order has been accepted.

The Liquidity Provider will send the Administrator the cash proceeds equal to the Cash Exchange Rate times the Total Basket Bitcoin Amount, minus applicable fees. The Liquidity Provider may realize any arbitrage opportunity between the firm quote that it provides to the Authorized Participant and the price at which it sells the requisite bitcoin for the Total Basket Bitcoin Amount. Once the Authorized Participant delivers the redemption Baskets to the Transfer Agent, the Administrator will send the cash proceeds to the Authorized Participant

and the Transfer Agent will cancel the Shares. At the instruction of the Administrator, the Custodian will then send the Liquidity Provider the Total Basket Bitcoin Amount.

The Sponsor represents that Liquidity Providers will only transact with exchanges and OTC trading partners that have met AML and KYC regulatory requirements. Authorized Participants that create and redeem Baskets using the Conversion Procedures will be responsible for reimbursing the relevant Liquidity Provider for any expenses incurred in connection with the Conversion Procedures. The Authorized Participants will also pay a variable fee to the Administrator for its facilitation of the Conversion Procedures. There are no other fees related to the Conversion Procedures that will be charged by the Sponsor or the Custodian.

The creation or redemption of Shares may be suspended generally, or refused with respect to particular requested creations or redemptions, during any period when the transfer books of the Transfer Agent are closed or if circumstances outside the control of the Sponsor or its delegates make it for all practical purposes not feasible to process creation orders or redemption orders. The Administrator may reject an order if such order is not presented in proper form as described in the Participant Agreement or if the fulfillment of the order, in the opinion of counsel, might be unlawful.

Availability of Information

The Trust's Web site (*https://grayscale.co/bitcoin-investment-trust/*) will include quantitative information on a per-Share basis updated on a daily basis, including, for the Trust (i) the current Bitcoin Holdings per Share daily and the prior business day's Bitcoin Holdings and the reported closing price, (ii) the mid-point of the bid-ask price [24] in relation to the Bitcoin Holdings as of the time the Bitcoin Holdings is calculated (''Bid-Ask Price'') and a calculation of the premium or discount of such price against such Bitcoin Holdings and (iii) data in chart format displaying the frequency distribution of discounts and premiums of the daily Bid-Ask Price against the Bitcoin Holdings, within appropriate ranges, for each of the four previous calendar quarters (or for the life of the Trust, if shorter). In addition, on each business day the Trust's Web site will provide pricing information for the Shares.

The Trust's Web site will provide an intra-day indicative value (''IIV'') per Share updated every 15 seconds, as calculated by the Exchange or a third party financial data provider during the Exchange's Core Trading Session (9:30 a.m. to 4:00 p.m., E.T.) [25] The IIV will be calculated by using the prior day's closing Bitcoin Holdings per Share as a base and updating that value during the NYSE Arca Core Trading Session to reflect changes in the value of the Trust's bitcoin holdings during the trading day.

The IIV disseminated during the NYSE Arca Core Trading Session should not be viewed as an actual real time update of the Bitcoin Holdings, which will be calculated only once at the end of each trading day. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session by one or more major market data vendors. In addition, the IIV will be available through on-line information services.

The Bitcoin Holdings for the Trust will be calculated by the Administrator once a day and will be disseminated daily to all market participants at the same time. To the extent that the Administrator has utilized the cascading set of rules described in ''Bitcoin Index Price'' above, the Trust's Web site will note the valuation methodology used and the price per bitcoin resulting from such calculation. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the Consolidated Tape Association (''CTA'').

Quotation and last sale information for bitcoin will be widely disseminated through a variety of major market data vendors, including Bloomberg and Reuters. In addition, the complete real-time price (and volume) data for bitcoin is available by subscription from Reuters and Bloomberg. The spot price of bitcoin is available on a 24-hour basis from major market data vendors, including Bloomberg and Reuters. Information relating to trading, including price and volume information, in bitcoin will be available from major market data vendors and from the exchanges on which bitcoin are traded. The normal trading hours for bitcoin exchanges are 24-hours per day, 365-days per year.

The Trust will provide Web site disclosure of its Bitcoin Holdings daily. The Web site disclosure of the Trust's Bitcoin Holdings will occur at the same time as the disclosure by the Sponsor of the Bitcoin Holdings to Authorized Participants so that all market participants are provided such portfolio information at the same time. Therefore, the same portfolio information will be provided on the public Web site as well as in electronic files provided to Authorized Participants. Accordingly, each investor will have access to the current Bitcoin Holdings of the Trust through the Trust's Web site.

Additional information regarding the Index may be found at *https://tradeblock.com/markets/index/.*

Trading Rules

The Trust will be subject to the criteria in NYSE Arca Equities Rule 8.201, including 8.201(e), for initial and continued listing of the Shares. A minimum of 100,000 Shares will be required to be outstanding at the start of trading. With respect to application of Rule 10A–3 under the Act, the Trust will rely on the exception contained in Rule 10A–3(c)(7). The Exchange believes that the anticipated minimum number of Shares outstanding at the start of trading is sufficient to provide adequate market liquidity.

The Exchange deems the Shares to be equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities. Trading in the Shares on the Exchange will occur in accordance with NYSE Arca Equities Rule 7.34(a).[26] The Exchange has appropriate rules to facilitate transactions in the Shares during all trading sessions. As provided in NYSE Arca Equities Rule 7.6, the minimum price variation (''MPV'') for quoting and entry of orders in equity securities traded on the NYSE Arca Marketplace is $0.01, with the exception of securities that are priced less than $1.00 for which the MPV for order entry is $0.0001.

Further, NYSE Arca Equities Rule 8.201 sets forth certain restrictions on Equity Trading Permit Holders (''ETP Holders'') acting as registered Market Makers in the Shares to facilitate surveillance. Pursuant to NYSE Arca Equities Rule 8.201(g), an ETP Holder acting as a registered Market Maker in

[24] The bid-ask price of the Trust is determined using the highest bid and lowest offer on the Consolidated Tape as of the time of calculation of the closing day Bitcoin Holdings.

[25] The IIV on a per Share basis disseminated during the Core Trading Session should not be viewed as a real-time update of the Bitcoin Holdings, which is calculated once a day.

[26] The Exchange has three trading sessions for Commodity-Based Trust Shares each day the Corporation is open for business unless otherwise determined by the Corporation: (i) The Opening Session begins at 1:00 a.m., Pacific Time (''P.T.''), and conclude at the commencement of the Core Trading Session; (ii) the Core Trading Session begins for each security at 6:30 a.m., P.T., or at the conclusion of the Market Order Auction, whichever comes later, and conclude at 1:15 p.m., P.T.; and (iii) the Late Trading Session begins following the conclusion of the Core Trading Session and concludes at 5:00 p.m., P.T.

the Shares is required to provide the Exchange with information relating to its trading in the underlying bitcoin, related futures or options on futures, or any other related derivatives. Commentary .04 of NYSE Arca Equities Rule 6.3 requires an ETP Holder acting as a registered Market Maker, and its affiliates, in the Shares to establish, maintain and enforce written policies and procedures reasonably designed to prevent the misuse of any material nonpublic information with respect to such products, any components of the related products, any physical asset or commodity underlying the product, applicable currencies, underlying indexes, related futures or options on futures and any related derivative instruments (including the Shares).

As a general matter, the Exchange has regulatory jurisdiction over its ETP Holders and their associated persons, which include any person or entity controlling an ETP Holder. A subsidiary or affiliate of an ETP Holder that does business only in commodities or futures contracts would not be subject to Exchange jurisdiction, but the Exchange could obtain information regarding the activities of such subsidiary or affiliate through surveillance sharing agreements with regulatory organizations of which such subsidiary or affiliate is a member.

With respect to trading halts, the Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. Trading on the Exchange in the Shares may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable. These may include: (1) The extent to which conditions in the underlying bitcoin markets have caused disruptions and/or lack of trading or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. In addition, trading in Shares will be subject to trading halts caused by extraordinary market volatility pursuant to the Exchange's ''circuit breaker'' rule.[27]

The Exchange will halt trading in the Shares if the Bitcoin Holdings of the Trust is not calculated or disseminated daily. The Exchange may halt trading during the day in which an interruption occurs to the dissemination of the IIV or the Index spot price, as discussed above. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurs, the Exchange will halt trading no later than the beginning of the trading day following the interruption.[28] In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants.

Surveillance

The Exchange represents that trading in the Shares will be subject to the existing trading surveillances administered by the Exchange, as well as cross-market surveillances administered by the Financial Industry Regulatory Authority (''FINRA'') on behalf of the Exchange, which are designed to detect violations of Exchange rules and applicable federal securities laws.[29] The Exchange represents that these procedures are adequate to properly monitor Exchange trading of the Shares in all trading sessions and to deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.

The surveillances referred to above generally focus on detecting securities trading outside their normal patterns, which could be indicative of manipulative or other violative activity. When such situations are detected, surveillance analysis follows and investigations are opened, where appropriate, to review the behavior of all relevant parties for all relevant trading violations.

The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets and other entities that are members of the Intermarket Surveillance Group (''ISG''), and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets and other entities. In addition, the Exchange may obtain information regarding trading in the Shares from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement (''CSSA'').[30]

Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders' proprietary or customer trades through ETP Holders which they effect on any relevant market.

The Exchange also has a general policy prohibiting the distribution of material, non-public information by its employees.

All statements and representations made in this filing regarding (i) the description of the portfolio, (ii) limitations on portfolio holdings or reference assets or (iii) the applicability of Exchange rules and surveillance procedures shall constitute continued listing requirements for listing the Shares on the Exchange.

The issuer has represented to the Exchange that it will advise the Exchange of any failure by the Trust to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Act, the Exchange will monitor for compliance with the continued listing requirements. If the Trust is not in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under NYSE Arca Equities Rule 5.5(m).

Information Bulletin

Prior to the commencement of trading, the Exchange will inform its ETP Holders in an ''Information Bulletin'' of the special characteristics and risks associated with trading the Shares. Specifically, the Information Bulletin will discuss the following: (1) The procedures for purchases and redemptions of Shares in Baskets (including noting that the Shares are not individually redeemable); (2) NYSE Arca Equities Rule 9.2(a), which imposes a duty of due diligence on its ETP Holders to learn the essential facts relating to every customer prior to trading the Shares; (3) how information regarding how the Index and the IIV are disseminated; (4) the requirement that ETP Holders deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; (5) the possibility that trading spreads and the resulting premium or discount on the Shares may widen during the Opening and Late Trading Sessions, when an updated IIV will not be calculated or publicly disseminated; and (6) trading information. For example, the Information Bulletin will advise ETP Holders, prior to the commencement of

[27] *See* NYSE Arca Equities Rule 7.12.

[28] The Exchange notes that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs.

[29] FINRA conducts cross market surveillances on behalf of the Exchange pursuant to a regulatory services agreement. The Exchange is responsible for FINRA's performance under this regulatory services agreement.

[30] For the list of current members of ISG, *see https://www.isgportal.org/home.html.*

trading, of the prospectus delivery requirements applicable to the Trust. The Exchange notes that investors purchasing Shares directly from the Trust will receive a prospectus. ETP Holders purchasing Shares from the Trust for resale to investors will deliver a prospectus to such investors.

In addition, the Information Bulletin will reference that the Trust is subject to various fees and expenses as described in the Registration Statement. The Information Bulletin will disclose that information about the Shares of the Trust is publicly available on the Trust's Web site.

The Information Bulletin will also discuss any relief, if granted, by the Commission or the staff from any rules under the Act.

2. Statutory Basis

The basis under the Act for this proposed rule change is the requirement under Section 6(b)(5) [31] that an exchange have rules that are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to, and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change is designed to prevent fraudulent and manipulative acts and practices in that the Shares will be listed and traded on the Exchange pursuant to the initial and continued listing criteria in NYSE Arca Equities Rule 8.201. The Exchange has in place surveillance procedures that are adequate to properly monitor trading in the Shares in all trading sessions and to deter and detect violations of Exchange rules and applicable federal securities laws. The Exchange or FINRA, on behalf of the Exchange, or both, will communicate as needed regarding trading in the Shares with other markets that are members of the ISG, and the Exchange or FINRA, on behalf of the Exchange, or both, may obtain trading information regarding trading in the Shares from such markets. In addition, the Exchange may obtain information regarding trading in the Shares from markets that are members of ISG or with which the Exchange has in place a CSSA. Also, pursuant to NYSE Arca Equities Rule 8.201(g), the Exchange is able to obtain information regarding trading in the Shares and the underlying bitcoin or any bitcoin derivative through ETP Holders acting as registered Market Makers, in connection with such ETP Holders' proprietary or customer trades through ETP Holders which they effect on any relevant market.

The proposed rule change is designed to promote just and equitable principles of trade and to protect investors and the public interest in that there is a considerable amount of bitcoin price and bitcoin market information available on public Web sites and through professional and subscription services. Investors may obtain on a 24-hour basis bitcoin pricing information based on the spot price for bitcoin from various financial information service providers. The closing price and settlement prices of bitcoin are readily available from the bitcoin exchanges and other publicly available Web sites. In addition, such prices are published in public sources, or on-line information services such as Bloomberg and Reuters. The Trust will provide Web site disclosure of its bitcoin holdings daily. Quotation and last-sale information regarding the Shares will be disseminated through the facilities of the CTA. The IIV will be widely disseminated on a per Share basis every 15 seconds during the NYSE Arca Core Trading Session (normally 9:30 a.m., E.T., to 4:00 p.m., E.T.) by one or more major market data vendors. In addition, the IIV will be available through on-line information services. The Exchange represents that the Exchange may halt trading during the day in which an interruption to the dissemination of the IIV or the Index spot price occurs. If the interruption to the dissemination of the IIV or the Index spot price persists past the trading day in which it occurred, the Exchange will halt trading no later than the beginning of the trading day following the interruption. In addition, if the Exchange becomes aware that the Bitcoin Holdings with respect to the Shares is not disseminated to all market participants at the same time, it will halt trading in the Shares until such time as the Bitcoin Holdings is available to all market participants. The Bitcoin Holdings per Share will be calculated daily and made available to all market participants at the same time. One or more major market data vendors will disseminate for the Trust on a daily basis information with respect to the most recent Bitcoin Holdings per Share and Shares outstanding.

The proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the listing and trading of an additional type of exchange-traded product that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures relating to trading in the Shares and may obtain information via ISG from other exchanges that are members of ISG or with which the Exchange has entered into a CSSA. In addition, as noted above, investors will have ready access to information regarding the Trust's bitcoin holdings, IIV and quotation and last sale information for the Shares.

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. The Exchange notes that the proposed rule change will facilitate the listing and trading of an additional type of exchange-traded product, and the first such product based on bitcoin, which will enhance competition among market participants, to the benefit of investors and the marketplace.

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. Proceedings To Determine Whether To Approve or Disapprove SR–NYSEArca–2017–06 and Grounds for Disapproval Under Consideration

The Commission is instituting proceedings pursuant to Section 19(b)(2)(B) of the Act [32] to determine whether the proposed rule change, as modified by Amendment No. 1, should be approved or disapproved. Institution of proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change, as discussed below. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[33] the Commission is providing notice of the grounds for disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of the proposed rule change's consistency with Section 6(b)(5) of the Act, which requires, among other things, that the rules of a

[31] 15 U.S.C. 78f(b)(5).

[32] 15 U.S.C. 78s(b)(2)(B).

[33] *Id.*

national securities exchange be ''designed to prevent fraudulent and manipulative acts and practices'' and ''to protect investors and the public interest.'' [34]

IV. Procedure: Request for Written Comments

The Commission requests that interested persons provide written submissions of their views, data, and arguments with respect to the issues identified above, as well as any other concerns they may have with the proposal, as modified by Amendment No. 1. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Section 6(b)(5) or any other provision of the Act, or the rules and regulations thereunder. Although there do not appear to be any issues relevant to approval or disapproval which would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[35]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal, as modified by Amendment No. 1, should be approved or disapproved by May 18, 2017. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by June 1, 2017. The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal and statements of commenters.[36] In addition to any other comments commenters may wish to submit about the proposed rule change, the Commission invites commenters' views concerning any features that distinguish the Exchange's proposal from other proposals to list and trade shares of commodity-trust ETPs.

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 email to *rule-comments@sec.gov.* Please include File Number SR–NYSEArca–2017–06 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File Numbers SR–NYSEArca–2017–06. This file number should be included on the subject line if email 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of these filings 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 Number SR–NYSEArca–2017–06 and should be submitted on or before May 18, 2017. Rebuttal comments should be submitted by June 1, 2017.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[37]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08462 Filed 4–26–17; 8:45 am]

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[34] 15 U.S.C. 78f(b)(5).

[35] Section 19(b)(2) of the Act, as amended by the Securities Act Amendments of 1975, Public Law 94–29 (June 4, 1975), grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by a self-regulatory organization. *See* Securities Act Amendments of 1975, Senate Comm. on Banking, Housing & Urban Affairs, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[36] *See supra* notes 6 & 7.

[37] 17 CFR 200.30–3(a)(12) and 17 CFR 200.30–3(a)(57).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80506; File No. SR–ICC–2017–003]

Self-Regulatory Organizations; ICE Clear Credit LLC; Notice of Designation of Longer Period for Commission Action on Proposed Rule Change, Security-Based Swap Submission, or Advance Notice Relating to ICC's End-of-Day Price Discovery Policies and Procedures

April 21, 2017.

On February 16, 2017, ICE Clear Credit LLC (''ICC'') 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 (SR–ICC–2017–003) to amend ICC's End-of-Day Price Discovery Policies and Procedures to implement a new price submission process for Clearing Participants (''CP''). The proposed rule change was published for comment in the **Federal Register** on March 9, 2017.[3] The Commission received no comments regarding the proposed changes.

Section 19(b)(2) of the Act provides that within 45 days of the publication of the notice of the filing or a proposed rule change, or within such longer period up to 90 days as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding, or as to which the self-regulatory organization consents, the Commission shall either approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether the proposed rule change should be disapproved.[4] The 45th day from the publication of the Notice is April 23, 2017.

The Commission is extending the 45-day time period for Commission action on the proposed rule change. ICC proposes to revise its End of Day Price Discovery Policies and Procedures to implement a new Clearing Participant price submission process to remove the intermediary agent through which Clearing Participants currently submit required prices, and replace it with a process through which Clearing Participants submit prices directly to ICC. The Commission finds that it is appropriate to designate a longer period

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] Securities Exchange Act Release No. 34–80150 (March 3, 2017), 82 FR 13173 (March 9, 2017) (SR–ICC–2017–003) (''Notice'').

[4] 15 U.S.C. 78s(b)(2).

within which to take action on the proposed rule change so that it has sufficient time to consider ICC's proposed rule change and the associated operational risks.

Accordingly, the Commission, pursuant to Section 19(b)(2) of the Act, extends the period by which the Commission shall either approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change (File No. SR–ICC–2017–003) to no later than June 7, 2017.

For the Commission by the Division of Trading and Markets, pursuant to delegated authority.[5]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08466 Filed 4–26–17; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80505; File No. SR–BatsBZX–2017–14]

Self-Regulatory Organizations; Bats BZX Exchange, Inc.; Notice of Designation of a Longer Period for Commission Action on a Proposed Rule Change, as Modified by Amendment Nos. 3 and 4, To List and Trade Shares of the Amplify YieldShares Oil Hedged MLP Fund, a Series of the Amplify ETF Trust, Under BZX Rule 14.11(i), Managed Fund Shares

April 21, 2017.

On February 17, 2017, Bats BZX Exchange, Inc. (''BZX'') 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 list and trade shares of the Amplify YieldShares Oil Hedged MLP Fund, a series of the Amplify ETF Trust. The proposed rule change was published for comment in the **Federal Register** on March 7, 2017.[3] On March 30, 2017, the Exchange filed Amendment No. 2 to the proposed rule change, and on April 7, 2017, the Exchange filed Amendment No. 3 to the proposed rule change.[4] The Exchange filed Amendment No. 4 to the proposed rule change on April 19, 2017.[5] The Commission has received no comment letters on the proposed rule change.

Section 19(b)(2) of the Act[6] provides that within 45 days of the publication of notice of the filing of a proposed rule change, or within such longer period up to 90 days as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding, or as to which the self-regulatory organization consents, the Commission shall either approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether the proposed rule change should be disapproved. The 45th day after publication of the notice for this proposed rule change is April 21, 2017. The Commission is extending this 45-day time period.

The Commission finds it appropriate to designate a longer period within which to take action on the proposed rule change so that it has sufficient time to consider this proposed rule change, as modified by Amendment Nos. 3 and 4. Accordingly, the Commission, pursuant to Section 19(b)(2) of the Act,[7] designates June 5, 2017, as the date by which the Commission shall either approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change (File No. SR–BatsBZX–2017–14), as modified by Amendment Nos. 3 and 4.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[8]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08465 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

[5] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 80136 (March 1, 2017), 82 FR 12860.

[4] The Exchange filed and withdrew Amendment No. 1 on March 30, 2017 and subsequently filed Amendment No. 2, which replaced the original filing in its entirety. Amendment No. 3, which replaced the original filing in its entirety, is available at *https://www.sec.gov/comments/sr-batsbzx-2017-14/batsbzx201714-1692102-149689.pdf.* Because Amendment No. 3 does not materially alter the substance of the proposed rule change or raise unique or novel regulatory issues, it is not subject to notice and comment.

[5] Amendment No. 4, which partially amends the proposed rule change, as modified by Amendment No. 3, is available at *https://www.sec.gov/comments/sr-batsbzx-2017-14/batsbzx201714-1711101-150239.pdf.* Because Amendment No. 4 does not materially alter the substance of the proposed rule change or raise unique or novel regulatory issues, it is not subject to notice and comment.

[6] 15 U.S.C. 78s(b)(2).

[7] *Id.*

[8] 17 CFR 200.30–3(a)(31).

SECURITIES AND EXCHANGE COMMISSION

[Release Nos. 33–10350; 34–80512; File No. 265–27]

SEC Advisory Committee on Small and Emerging Companies

AGENCY: Securities and Exchange Commission.

ACTION: Notice of meeting.

SUMMARY: The Securities and Exchange Commission Advisory Committee on Small and Emerging Companies is providing notice that it will hold a public meeting on Wednesday, May 10, 2017, in Multi-Purpose Room LL–006 at the Commission's headquarters, 100 F Street NE., Washington, DC. The meeting will begin at 9:30 a.m. (EST) and will be open to the public. The meeting will be webcast on the Commission's Web site at *www.sec.gov.* Persons needing special accommodations to take part because of a disability should notify the contact person listed below. The public is invited to submit written statements to the Committee. The agenda for the meeting includes matters relating to rules and regulations affecting small and emerging companies under the federal securities laws. Notice of this meeting is less than fifteen days prior to the meeting due to an administrative delay.

DATES: The public meeting will be held on Wednesday, May 10, 2017. Written statements should be received on or before May 8, 2017.

ADDRESSES: The meeting will be held at the Commission's headquarters, 100 F Street NE., Washington, DC. Written statements may be submitted by any of the following methods:

Electronic Statements

- Use the Commission's Internet submission form (*http://www.sec.gov/info/smallbus/acsec.shtml*); or
- Send an email message to *rule-comments@sec.gov.* Please include File Number 265–27 on the subject line; or

Paper Statements

- Send paper statements to Brent J. Fields, Federal Advisory Committee Management Officer, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File No. 265–27. This file number should be included on the subject line if email is used. To help us process and review your statement more efficiently, please use only one method. The Commission will post all statements on the Advisory Committee's Web site (*https://*

www.sec.gov/info/smallbus/acsec.shtml).

Statements also will be available for Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. All statements 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: Julie Z. Davis, Senior Special Counsel, at (202) 551–3460, Office of Small Business Policy, Division of Corporation Finance, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–3628.

SUPPLEMENTARY INFORMATION: In accordance with Section 10(a) of the Federal Advisory Committee Act, 5 U.S.C.-App. 1, and the regulations thereunder, Elizabeth M. Murphy, responsible as Designated Federal Officer of the Committee, has ordered publication of this notice.

Dated: April 24, 2017.

Brent J. Fields,

Committee Management Officer.

[FR Doc. 2017–08534 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80510; File No. SR–CBOE–2017–034]

Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change Relating to Rule 5.7

April 21, 2017.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 12, 2017, Chicago Board Options Exchange, Incorporated (the ''Exchange'' or ''CBOE'') 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 Exchange. The Exchange filed the proposal as a ''non-controversial'' proposed rule change pursuant to Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder.[4] 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 5.7. The text of the proposed rule change is provided below.
(additions are *italicized;* deletions are [bracketed])

* * * * *

Chicago Board Options Exchange, Incorporated Rules

* * * * *

Rule 5.7. Adjustments

Options contracts are subject to adjustments in accordance with the Rules of the Options Clearing Corporation. [When adjustments have been made, announcement of that fact will be made by the Exchange, and the adjusted unit of trading and the adjusted exercise price will be posted at the post at which the series is traded and will be effective at the time specified in the announcement for all subsequent transactions in that series.]

* * * * *

The text of the proposed rule change is also available on the Exchange's Web site (*http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx*), at the Exchange's Office of the Secretary, and at 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 Exchange 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 Exchange 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 proposes to amend Rule 5.7. Currently, Rule 5.7 states options contracts are subject to adjustments in accordance with the Rules of the Options Clearing Corporation (''OCC''). When adjustments have been made, announcement of that fact will be made by the Exchange, and the adjusted unit of trading and the adjusted exercise price will be posted at the post at which the series is traded and will be effective at the time specified in the announcement for all subsequent transactions in that series.

OCC lists and clears all options that trade on national securities exchanges. As stated in Rule 5.7, OCC rules govern options contract adjustments. OCC has sole discretion for adjustment decisions to ensure those decisions are consistent, efficient and free from undue influence. Because OCC's rules govern and provide OCC with sole discretion regarding options contract adjustments, including how and when these adjustments are made,[5] CBOE does not believe it is necessary to have any role in the contract adjustment process.[6] When OCC adjusts an options contract, OCC issues an information circular and publishes other information regarding the adjustment on its Web site. As a result, all Trading Permit Holders have access to information regarding contract adjustments from OCC.[7] Therefore, CBOE does not believe its rules should impose any requirements on CBOE to announce contract adjustments made by OCC.[8] CBOE proposes to amend Rule 5.7 by deleting the requirement to announce contract adjustments, as it is duplicative of OCC's requirement to publish this information. The Exchange also proposes to delete the requirement to post the adjusted unit of trading and exercise price at the post at which the series is traded. The concept of posting information at a trading post on the trading floor is outdated, as the Exchange's current primary means of communicating information to Trading Permit Holders is electronic means,

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

[5] *See* Securities Exchange Act Release No. 34–69977 (July 11, 2013), 78 FR 42815, 42816–42817 (July 17, 2013) (SR–OCC–2013–05) (order approving proposed rule change to provide that OCC, rather than adjustment panel of the securities committee, will determine adjustments to the terms of options contracts to account for certain events, such as certain dividend distributions or other corporate actions, that affect the underlying security or other underlying interest).

[6] CBOE does not comment on contract adjustments, and directs investors to contact OCC for information on contract adjustments. CBOE cannot provide guidance as to how OCC's by-laws or rules may be applied in any particular situation.

[7] *See http://www.theocc.com/webapps/infomemos.* OCC's Web site permits investors to subscribe (free of charge) to directly receive information memos regarding contract adjustments from OCC when issued.

[8] Currently, CBOE publishes information regarding contract adjustments on its Web site. *See http://www.cboe.com/trading-resources/contract-adjustments.*

such as via Regulatory Circular or Web site posting.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Securities Exchange Act of 1934 (the ''Act'') and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.[9] Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[10] requirements that the rules of an exchange 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 regulating, clearing, settling, processing information with respect to, and 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. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[11] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the proposed rule change is consistent with the rules of OCC, the lister and clearer of all listed options, with respect to contract adjustments. OCC will continue to make contract adjustments in accordance with its rules (as set forth in Rule 5.7), and all investors will continue to have access to information regarding contract adjustments directly from OCC. The proposed rule change has no impact on the manner in which contract adjustments are made, as OCC has sole discretion to make those determinations. The proposed rule change merely deletes CBOE's duplicative obligation to announce and post this information, which benefits investors.

B. Self-Regulatory Organization's Statement on Burden on Competition

CBOE 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. OCC will continue to make contract adjustments in accordance with its rules, and all investors will continue to have access to information regarding contract adjustments directly from OCC. The proposed rule change has no impact on the manner in which contract adjustments are made, as OCC has sole discretion to make those determinations. The proposed rule change merely deletes CBOE's duplicative obligation to announce and post this information, and thus has no impact on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[12] and Rule 19b–4(f)(6)[13] thereunder.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend 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. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

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 email to *rule-comments@sec.gov. Please include File Number SR–CBOE–2017–034 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–CBOE–*2017–034.* This file number should be included on the subject line if email 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the 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 Number SR–CBOE–2017–034 and should be submitted on or before May 18, 2017.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08467 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

[9] 15 U.S.C. 78f(b).

[10] 15 U.S.C. 78f(b)(5).

[11] *Id.*

[12] 15 U.S.C. 78s(b)(3)(A).

[13] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) 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. The Exchange has satisfied this requirement.

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80500; File No. SR–NYSEMKT–2016–103]

Self-Regulatory Organizations; NYSE MKT LLC; Notice of Filing of Amendment No. 1 to a Proposed Rule Change Allowing the Exchange To Trade, Pursuant to Unlisted Trading Privileges, Any NMS Stock Listed on Another National Securities Exchange; Establishing Rules for the Trading Pursuant to UTP of Exchange-Traded Products; and Adopting New Equity Trading Rules Relating to Trading Halts of Securities Traded Pursuant to UTP on the Pillar Platform

April 21, 2017.

On June 30, 2016, NYSE MKT LLC (''Exchange'' or ''NYSE MKT'') 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 (1) allow the Exchange to trade pursuant to unlisted trading privileges (''UTP'') any NMS Stock [3] listed on another national securities exchange; (2) establish listing and trading requirements for exchange-traded products (''ETPs''); and (3) adopt new equity trading rules relating to trading halts for securities traded pursuant to UTP on the Exchange's new trading platform, Pillar. The proposed rule change was published for comment in the **Federal Register** on December 1, 2016.[4]

On January 4, 2017, pursuant to Section 19(b)(2) of the Act,[5] the Commission designated a longer period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to approve or disapprove the proposed rule change.[6] On February 24, 2017, the Commission instituted proceedings to determine whether to approve or disapprove the proposed rule change.[7] The Commission has received no comments on the proposed rule change.

On March 28, 2017, the Exchange filed Amendment No. 1 to the proposed rule change, as described in Items I and II below, which Items have been prepared by the Exchange.[8] The Commission is publishing this notice to solicit comments on Amendment No. 1 to 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 (1) allow the Exchange to trade pursuant to unlisted trading privileges (''UTP'') for any NMS Stock listed on another national securities exchange; (2) establish rules for the trading pursuant to UTP of exchange traded products (''ETPs''); and (3) adopt new equity trading rules relating to trading halts of securities traded pursuant to UTP on the Pillar platform. This Amendment No. 1 supersedes the original filing in its entirety. This Amendment No. 1 also amends the proposed rules to conform to the rules of NYSE Arca, Inc. (''NYSE Arca''), as they may have been amended since the date of the original filing. The proposed rule change is available on the Exchange's Web site at *www.nyse.com,* at the principal office of the Exchange, and at 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 the Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange is proposing new rules to trade all Tape A and Tape C symbols, on a UTP basis, on its new trading platform, Pillar.[9]

In addition, the Exchange is proposing rules for the trading on Pillar pursuant to UTP of the following types of Exchange Traded Products: [10]

- Equity Linked Notes (''ELNs'');
- Investment Company Units;
- Index-Linked Exchangeable Notes;
- Equity Gold Shares;
- Equity Index-Linked Securities;
- Commodity-Linked Securities;
- Currency-Linked Securities;
- Fixed-Income Index-Linked Securities;
- Futures-Linked Securities;
- Multifactor-Index-Linked Securities;
- Trust Certificates;
- Currency and Index Warrants;
- Portfolio Depositary Receipts;
- Trust Issued Receipts;
- Commodity-Based Trust Shares;
- Currency Trust Shares;
- Commodity Index Trust Shares;
- Commodity Futures Trust Shares;
- Partnership Units;
- Paired Trust Shares;
- Trust Units;
- Managed Fund Shares; and
- Managed Trust Securities.

The Exchange's proposed rules for these products are substantially identical (other than with respects to certain non-substantive and technical amendments described below) as the rules of NYSE Arca Equities for the qualification, listing and trading of such products.[11]

The Exchange's approach in this filing is the same as the approach of (1) BATS BYX Exchange, Inc. f/k/a BATS Y-Exchange, Inc. (''BYX''), which filed a

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[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] The term ''NMS Stock'' is defined in Rule 600 of Regulation NMS. *See* 17 CFR 242.600(b)(47).

[4] *See* Securities Exchange Act Release No. 79400 (Nov. 25, 2016), 81 FR 86750 (Dec. 1, 2016).

[5] 15 U.S.C. 78s(b)(2).

[6] *See* Securities Exchange Act Release No. 79738 (Jan. 4, 2017), 82 FR 3068 (Jan. 10, 2017).

[7] *See* Securities Exchange Act Release No. 80097 (Feb. 24, 2017), 82 FR 12251 (Mar. 1, 2017). Specifically, the Commission instituted proceedings to allow for additional analysis of the proposed rule change's consistency with Section 6(b)(5) of the Act, which requires, among other things, that the rules of a national securities exchange be ''designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade,'' and ''to protect investors and the public interest.'' *See id.* at 12252.

[8] The full text of Amendment No. 1, including Exhibits 4 and 5, is available at *https://www.sec.gov/comments/sr-nysemkt-2016-103/nysemkt2016103-1672987-149219.pdf.*

[9] On January 29, 2015, the Exchange announced the implementation of Pillar, which is an integrated trading technology platform designed to use a single specification for connecting to the equities and options markets operated by the Exchange and its affiliates, NYSE Arca and New York Stock Exchange LLC (''NYSE LLC''). *See* Trader Update dated January 29, 2015, available here: *http://www1.nyse.com/pdfs/Pillar_Trader_Update_Jan_2015.pdf.* In February 2016, NYSE Arca Equities was the first market to begin migration to the Pillar platform. In March of 2016, NYSE Group, Inc. announced the completion of a ''key phase'' of the project and, in May 2016, NYSE Group, Inc. completed the rollout of NYSE Pillar matching engines on NYSE Arca. The next phase of the NYSE Pillar migration began in November 2016 with certification testing for the new gateways and protocols. *See* Content To Live: *https://WWW.NYSE.COM/PILLAR.*

[10] The Exchange is proposing to define the term ''Exchange Traded Product'' to mean a security that meets the definition of ''derivative securities product'' in Rule 19b–4(e) under the Securities Exchange Act of 1934. *See* proposed Rule 1.1E(bbb). This proposed definition is identical to the definition of ''Derivatives Securities Product'' in NYSE Arca Equities Rule 1.1(bbb).

[11] *See* NYSE Arca Equities Rules 5 (Listings) and 8 (Trading of Certain Equities Derivatives).

proposed rule change with the Commission to conform its rules to the rules of its affiliate, Bats BZX Exchange, Inc. f/k/a BATS Exchange, Inc. (''BATS''),[12] (2) NASDAQ Stock Market LLC, which filed a proposed rule change with the Commission to amend its rules regarding Portfolio Depository Receipts and Index Fund Shares to conform to the rules of NYSE Arca,[13] and (3) American Stock Exchange LLC (''Amex''), which filed a proposed rule change with the Commission to copy all of the relevant rules of Amex in their entirety (other than with respects to certain non-substantive and technical changes) for adoption by its new trading platform for equity products and exchange traded funds—AEMI.[14]

The Exchange's only trading pursuant to UTP will be on the Pillar platform; it will not trade securities pursuant to UTP on its current platform. Further, at this time, the Exchange does not intend to list ETPs on its Pillar platform and will only trade ETPs on the Pillar platform pursuant to UTP.[15] Therefore, the Exchange is only proposing ETP rules in this rule filing that would apply to the Pillar platform and trading pursuant to UTP. Since the Exchange does not plan to trade ETPs on the Pillar platform that would be listed under these proposed rules, the Exchange is not proposing to change any of the current rules of the Exchange pertaining to the listing and trading of ETPs in the NYSE MKT Company Guide [16] or in its other rules.

In accordance with the rule numbering framework adopted by the Exchange in the Pillar Framework Filing,[17] each rule proposed herein would have the same rule numbers as the NYSE Arca Equities rules with which it conforms.

Finally, in the Pillar Framework Filing, the Exchange adopted rules grouped under proposed Rule 7E relating to equities trading.[18] The Exchange now proposes Rule 7.18E under Rule 7E relating to trading halts of securities traded pursuant to UTP on the Pillar platform. The Exchange's proposed Rule 7.18E is substantially identical (other than with respects to certain non-substantive and technical amendments described below) as NYSE Arca Equities Rule 7.18.[19]

Proposal To Trade Securities Pursuant to UTP

The Exchange is proposing new Rule 5.1E(a) to establish rules regarding the extension of UTP securities to the Pillar platform, which are listed on other national securities exchanges. As proposed, the first sentence of new Rule 5.1E(a) would allow the Exchange to trade securities eligible for UTP under Section 12(f) of the Exchange Act.[20] This proposed text is identical to Rules 14.1 of both BYX and EDGA Exchange, Inc. (''EDGA'') and substantially similar to NYSE Arca Equities Rule 5.1(a).

Proposed Rule 5.1E(a) would adopt rules reflecting requirements for trading products on the Exchange pursuant to UTP that have been established in various new product proposals previously approved by the Commission.[21] In addition, proposed Rule 5.1E(a) would state that the securities the Exchange trades pursuant to UTP would be traded on the new Pillar trading platform under the rules applicable to such trading.[22] Accordingly, the Exchange would not trade UTP securities on the Pillar platform until its trading rules for the Pillar platform are effective.

Finally, proposed Rule 5.1E(a)(1) would make clear that the Exchange would not list any ETPs, unless it filed a proposed rule change under Section 19(b)(2) [23] under the Act. Therefore, the provisions of proposed Rules 5E and 8E described below, which permit the listing of ETPs, would not be effective until the Exchange files a proposed rule change to amend its rules to comply with Rules 10A–3 and 10C–1 under the Act and to incorporate qualitative listing criteria, and such proposed rule change is approved by the Commission. This would require the Exchange to adopt rules relating to the independence of compensation committees and their advisors.[24]

UTP of Exchange Traded Products

The Exchange proposes Rule 5.1E(a)(2) to specifically govern trading of ETPs pursuant to UTP. Specifically, the requirements in subparagraphs (A)–(F) of proposed Rule 5.1E(a)(2) would apply to ETPs traded pursuant to UTP on the Exchange.

Under proposed Rule 5.1E(a)(2)(A), the Exchange would file a Form 19b–4(e) with the Commission with respect to each ETP [25] the Exchange trades

[12] *See,* Securities Exchange Act Release No. 63097 (October 13, 2010), 75 FR 64767 (October 20, 2010) (SR–BYX–2010–002).

[13] *See,* Securities Exchange Act Release No. 69928 (July 3, 2013), 78 FR 41489 (July 10, 2013) (SR–NASDAQ–2013–094).

[14] *See,* Securities Exchange Act Release No. 54552 (September 29, 2006), 71 FR 59546 (October 10, 2006) (SR–Amex–2005–104) and Securities Exchange Act Release No. 54145 (July 14, 2006), 71 FR 41654 (July 21, 2006) (SR–Amex–2005–104).

[15] The Exchange currently lists five ETPs on its current trading platform. These ETPs will continue to be listed and traded pursuant to the NYSE MKT Company Guide and the other rules of the Exchange that do not apply to the Pillar platform.

[16] NYSE MKT Company Guide, *http://wallstreet.cch.com/MKT/CompanyGuide/.*

[17] *See,* SR–NYSEMKT–2016–97 Initial Filing (October 25, 2016) (''Pillar Framework Filing''). The Exchange is using the same rule numbering framework as the NYSE Arca Equities rules and would consist of proposed Rules 1E–13E. Rules 1E–13E would be operative for securities that are trading on the Pillar trading platform.

[18] The Pillar Framework Filing added Rules 7.5E and 7.6E to establish the trading units and trading differentials for trading on the Pillar platform. The Exchange also added Rule 7.12E, related to Trading Halts Due to Extraordinary Market Volatility in the Pillar Framework Filing. Since trading on the Pillar platform will be under these new rules, the Exchange specified in the Pillar Framework Filing that current Exchange Rule 7-Equities (which defines the term ''Exchange BBO'') would not be applicable to trading on the Pillar trading platform. In addition, with the exception of Rules 7.5E, 7.6E and 7.12E, the Exchange added Rules 7.1E–Rule 7.44E on a ''Reserved'' basis. *Id.*

[19] *See,* NYSE Arca Equities Rule 7.18. *See, also,* Securities Exchange Act Release No. 75467 (July 16, 2015), 80 FR 43515 (July 22, 2015) (SR–NYSEArca–2015–58), as amended by Amendment No. 1; Securities Exchange Act Release No. 76198A (October 20, 2015), 80 FR 65274 (October 26, 2015) (SR–NYSEArca–2015–58).

[20] Section 12(f) of the Exchange Act. 15 U.S.C. 78l(f).

[21] *See,* NYSE Arca Equities Rule 5.1(a)(1) and Securities Exchange Act Release No. 67066 (May 29, 2012), 77 FR 33010 (June 4, 2012) (SR–NYSEArca–2012–46); BATS Rule 14.11 and Securities Exchange Act Release No. 58623 (September 23, 2008), 73 FR 57169 (October 1, 2008) (SR–BATS–2008–004); National Stock Exchange, Inc. (''NSX'') Rule 15.9 and Securities Exchange Act Release No. 57448 (March 6, 2008), 73 FR 13597 (March 13, 2008) (SR–NSX–2008–05); NASDAQ OMX PHLX LLC (''Phlx'') Phlx Rule 803(o) and Securities Exchange Act Release No. 57806 (May 9, 2008), 73 FR 28541 (May 16, 2008) (SR–Phlx2008–34); International Securities Exchange, LLC (''ISE'') ISE Rule 2101 and Securities Exchange Act Release No. 57387 (February 27, 2008), 73 FR 11965 (March 5, 2008) (SR–ISE–2007–99).

[22] *See* supra note 17.

[23] 15 U.S.C. 78s(b)(2).

[24] On June 20, 2012, the Commission adopted Rule 10C–1 to implement Section 10C of the Act, as added by Section 952 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Rule 10C–1 under the Act directs each national securities exchange to prohibit the listing of any equity security of an issuer, with certain exceptions, that does not comply with the rule's requirements regarding compensation committees of listed issuers and related requirements regarding compensation advisers. *See,* CFR 240.10C–1; Securities Act Release No. 9199, Securities Exchange Act Release No. 64149 (March 30, 2011), 76 FR 18966 (April 6, 2011) and Securities Exchange Act Release No. 67220 (June 20, 2012), 77 FR 38422 (June 27, 2012).

[25] Although Rule 19b–4(e) of the Act defines any type of option, warrant, hybrid securities product or any other security, other than a single equity option or a security futures product, whose value is based, in whole or in part, upon the performance of, or interest in, an underlying instrument, as a ''new derivative securities product,'' the Exchange prefers to refer to these types of products that it will be trading as ''exchange traded products,'' so as not to confuse investors with a term that can be deemed to imply such products are futures or options related.

pursuant to UTP within five days after commencement of trading.

In addition, proposed Rule 5.1E(a)(2)(B) would provide that the Exchange will distribute an information circular prior to the commencement of trading in such an ETP that generally would include the same information as the information circular provided by the listing exchange, including (a) the special risks of trading the ETP, (b) the Exchange's rules that will apply to the ETP, including Rules 2090-Equities and 2111-Equities,[26] and (c) information about the dissemination of value of the underlying assets or indices.

Under proposed Rule 5.1E(a)(2)(D), the Exchange would halt trading in a UTP Exchange Traded Product in certain circumstances. Specifically, if a temporary interruption occurs in the calculation or wide dissemination of the intraday indicative value (or similar value) or the value of the underlying index or instrument and the listing market halts trading in the product, the Exchange, upon notification by the listing market of such halt due to such temporary interruption, also would immediately halt trading in that product on the Exchange. If the intraday indicative value (or similar value) or the value of the underlying index or instrument continues not to be calculated or widely available as of the commencement of trading on the Exchange on the next business day, the Exchange would not commence trading of the product that day. If an interruption in the calculation or wide dissemination of the intraday indicative value (or similar value) or the value of the underlying index or instrument continues, the Exchange could resume trading in the product only if calculation and wide dissemination of the intraday indicative value (or similar value) or the value of the underlying index or instrument resumes or trading in such series resumes in the listing market. The Exchange also would halt trading in a UTP Exchange Traded Product listed on the Exchange for which a net asset value (and in the case of managed fund shares or actively managed exchange-traded funds, a ''disclosed portfolio'') is disseminated if the Exchange became aware that the net asset value or, if applicable, the disclosed portfolio was not being disseminated to all market participants at the same time. The Exchange would maintain the trading halt until such time as the Exchange became aware that the net asset value and, if applicable, the disclosed portfolio was available to all market participants.

Finally, the Exchange represents that its surveillance procedures for ETPs traded on the Exchange pursuant to UTP would be similar to the procedures used for equity securities traded on the Exchange and would incorporate and rely upon existing Exchange surveillance systems.

Proposed Rules 5.1E(a)(2)(C) and (E) would establish the following requirements for ETP Holders that have customers that trade UTP Exchange Traded Products:

• *Prospectus Delivery Requirements.* Proposed Rule 5.1E(a)(2)(C)(i) would remind ETP Holders that they are subject to the prospectus delivery requirements under the Securities Act of 1933, as amended (the ''Securities Act''), unless the ETP is the subject of an order by the Commission exempting the product from certain prospectus delivery requirements under Section 24(d) of the Investment Company Act of 1940, as amended (the ''1940 Act''), and the product is not otherwise subject to prospectus delivery requirements under the Securities Act. ETP Holders would also be required to provide a prospectus to a customer requesting a prospectus.[27]

• *Written Description of Terms and Conditions.* Proposed Rule 5.1E(a)(2)(C)(ii) would require ETP Holders to provide a written description of the terms and characteristics of UTP Exchange Traded Products to purchasers of such securities, not later than the time of confirmation of the first transaction, and with any sales materials relating to UTP Exchange Traded Products.

• *Market Maker Restrictions.* Proposed Rule 5.1E(a)(E) would establish certain restrictions for any ETP Holder registered as a market maker in an ETP that derives its value from one or more currencies, commodities, or derivatives based on one or more currencies or commodities, or is based on a basket or index composed of currencies or commodities (collectively, ''Reference Assets''). Specifically, such an ETP Holder must file with the Exchange and keep current a list identifying all accounts for trading the underlying physical asset or commodity, related futures or options on futures, or any other related derivatives, which the ETP Holder acting as registered market maker may have or over which it may exercise investment discretion.[28] If an account in which an ETP Holder acting as a registered market maker, directly or indirectly, controls trading activities, or has a direct interest in the profits or losses thereof, has not been reported to the Exchange as required by this Rule, an ETP Holder acting as registered market maker in the ETP would be permitted to trade in the underlying physical asset or commodity, related futures or options on futures, or any other related derivatives. Finally, a market maker could not use any material nonpublic information in connection with trading a related instrument.

Proposed Requirements for Exchange Traded Products

Definitions & Terms of Use

The Exchange proposes to define the term ''exchange traded product'' in Rule 1.1E(bbb). Proposed Rule 1.1E(bbb) would define the term ''Exchange Traded Product'' to mean a security that meets the definition of ''derivative securities product'' in Rule 19b–4(e) under the Securities Exchange Act of 1934 and a ''UTP Exchange Traded Product'' to mean an Exchange Traded Product that trades on the Exchange pursuant to unlisted trading privileges.[29] The Exchange proposes to use the term Exchange Traded Product instead of ''derivative securities product,'' because it believes that the term ''Exchange Traded Product'' more accurately describes the types of products the Exchange proposes to trade and is less likely to confuse investors by using a term that implies such products are futures or options related.

Next, the Exchange proposes to add the definitions contained in NYSE Arca Equities Rule 5.1(b) that are relevant to the rules for the trading pursuant to UTP of the ETPs that the Exchange proposes in this filing, which are described below. To maintain consistency in rule references between the Exchange's proposed rules and NYSE Arca Equities' rules, the Exchange proposes to Reserve subparagraphs to

[26] *See,* Rule 2090-Equities (the Exchange's Know Your Customer Rule) and Rule 2111-Equities (the Exchange's Suitability Rule). *See, also,* Securities Exchange Act Release No. 78106 (June 20, 2016), 81 FR 41364 (June 24, 2016) (SR–NYSEMKT–2016–59).

[27] Proposed Rule 5.1E(a)(2)(C)(iii).

[28] The proposed rule would also, more specifically, require a market maker to file with the Exchange and keep current a list identifying any accounts (''Related Instrument Trading Accounts'') for which related instruments are traded (1) in which the market maker holds an interest, (2) over which it has investment discretion, or (3) in which it shares in the profits and/or losses. In addition, a market maker would not be permitted to have an interest in, exercise investment discretion over, or share in the profits and/or losses of a Related Instrument Trading Account that has not been reported to the Exchange as required by the proposed rule.

[29] This proposed definition is identical to the definition of ''Derivative Securities Product'' in NYSE Arca Equities Rule 1.1(bbb).

the extent it is not now proposing certain definitions from NYSE Arca Equities Rule 5.1(b).[30] Other than a non-substantive difference to use the term ''Exchange'' instead of ''Corporation, ''NYSE Arca Marketplace,'' or ''NYSE Arca Parent,'' the terms defined in this proposed Rule 5.1E(b) would have the identical meanings to the terms used in NYSE Arca Equities Rule 5.1(b).

Finally, the Exchange proposes to make the following substitutions in its proposed rules for terms used in the NYSE Arca Equities ETP listing and trading rules (collectively, the ''General Definitional Term Changes''):

- Because the Exchange uses the term ''Supplementary Material'' to refer to commentaries to its Rules, the Exchange proposes to substitute this term where ''Commentary'' is used in the rules of NYSE Arca Equities;
- Because the Exchange tends to use the term ''will'' to impose obligations or duties on its members and ETP Holders, the Exchange proposes to substitute this term where ''shall'' is used in the rules of NYSE Arca Equities;
- The Exchange proposes to use the term ''ETP Holder'' [31] instead of ''member organization,'' as defined in Rule 2-Equities, because member organizations would be required to hold an Equity Trading Permit issued by the Exchange to effect transactions on the Exchange's Pillar platform;
- The Exchange proposes to use the term ''Exchange'' [32] instead of ''Corporation, ''NYSE Arca Marketplace,'' or ''NYSE Arca Parent;''
- Because the Exchange's hours for business are described in Rule 51-Equities and the Exchange's rules do not use a defined term to refer to such hours, the Exchange is proposing to refer to its core trading hours as the ''Exchange's normal trading hours,'' and substitute this phrase for ''Core Trading Session'' and ''Core Trading Hours,'' as defined in the rules of NYSE Arca Equities;
- Because the Exchange's rules pertaining to trading halts due to extraordinary market volatility on the Pillar platform are described in Rule 7.12E, the Exchange is proposing to refer to Rule 7.12E in its proposed rules wherever NYSE Arca Equities Rule 7.12 [33] is referenced in the rules of NYSE Arca Equities proposed in this filing;
- Because the Exchange's rules pertaining to the mechanics of the limit-up-limit down plan as it relates to trading pauses in individual securities due to extraordinary market volatility are described in Rule 80C-Equities, the Exchange is proposing to refer to Rule 80C-Equities in its proposed rules wherever NYSE Arca Equities Rule 7.11 [34] is referenced in the rules of NYSE Arca Equities proposed in this filing;
- Because NYSE Arca Equities Rule 7.18 [35] establishes the requirements for trading halts in securities traded on the Pillar trading platform, and the Exchange is proposing new Rule 7.18E in this filing, based on NYSE Arca Equities Rule 7.18, the Exchange is proposing to refer to Rule 7.18E in its proposed rules wherever NYSE Arca Equities Rule 7.34 [sic] is referenced in the rules of NYSE Arca Equities proposed in this filing; and
- Because the Exchange's rules regarding the production of books and records are described in Rule 440-Equities, the Exchange is proposing to refer to Rule 440-Equities in its proposed rules wherever NYSE Arca Equities Rule 4.4 [36] is referenced in the rules of NYSE Arca Equities proposed in this filing.

Rules for the Trading Pursuant to UTP of ETPs

The Exchange would have to file a Form 19b–4(e) with the Commission to trade these ETPs pursuant to UTP. The Exchange is proposing substantially identical rules to those of NYSE Arca Equities for the qualification, listing and delisting of companies on the Exchange applicable to the ETPs.[37]

Furthermore, the Exchange proposes to include additional continued listing standards in the proposed rules for the trading pursuant to UTP, as well as clarify the procedures it will undertake when an ETP is noncompliant with applicable rules. These proposed rules are being made in concert with discussions with the SEC. Staff (''Staff'') of the SEC's Division of Trading and Markets (''T&M'') requested that the Exchange adopt certain additional continued listing standards for trading ETPs pursuant to UTP.

As a result, the proposed rules for the trading pursuant to UTP reflect the guidance provided by T&M Staff to clarify that most initial listing standards, as well as certain representations included in Exchange rule filings under SEC Rule 19b–4 to trade ETPs pursuant to UTP (''Exchange Rule Filings''), are also considered continued listing standards. The Exchange Rule Filing representations that will also be required to be maintained on a continuous basis include (a) the description of the fund and (b) the fund's investment restrictions.

The proposed rules require that ETPs traded pursuant to UTP on the Exchange without an Exchange Rule Filing must maintain the initial index or reference asset criteria on a continued basis. For example, in the case of a domestic equity index, these criteria generally include: (a) Stocks with 90% of the weight of the index must have a minimum market value of at least $75 million; (b) stocks with 70% of the weight of the index must have a minimum monthly trading volume of at least 250,000 shares; (c) the most heavily weighted component cannot exceed 30% of the weight of the index, and the five most heavily weighted stocks cannot exceed 65%; (d) there must be at least 13 stocks in the index; and (e) all securities in the index must be listed in the U.S. There are similar criteria for international indexes, fixed-income indexes and indexes with a combination of components.

If an Exchange Rule Filing is made to trade a specific ETP pursuant to UTP, the proposed rules require that the issuer of the security comply on a continuing basis with any statements or representations contained in the applicable rule proposal, including (a) the description of the portfolio and (b) limitations on portfolio holdings or

[30] The Exchange is proposing to Reserve paragraphs (b)(3), (b)(7), (b)(8), (b)(10), (b)(17) and (b)(19) of proposed Rule 5.1E(b), because the terms used in the parallel provisions of the NYSE Arca Equities rules would not be used in the rules for the trading pursuant to UTP of the ETPs that the Exchange is proposing in this filing.

[31] The Exchange plans to file additional proposed rule changes under Rule 19b–4 of the Act to implement the Pillar platform on the Exchange. These additional proposed rule changes would define the terms ''ETP Holder'' and ''Market Maker'' as they would be used on the Exchange's Pillar platform and specify the requirements for obtaining an Equity Trading Permit.

[32] Under Rule 1E, the term ''the Exchange,'' when used with reference to the administration of any rule, means the NYSE MKT LLC or the officer, employee, person, entity or committee to whom appropriate authority to administer such rule has been delegated by the Exchange.

[33] Exchange Rule 7.12E is substantially identical to NYSE Arca Equities Rule 7.12, which pertains to Trading Halts Due to Extraordinary Market Volatility.

[34] Exchange Rule 80C-Equities is substantially identical to NYSE Arca Equities Rule 7.11, which pertains to the Limit Up-Limit Down Plan and Trading Pauses In Individual Securities Due to Extraordinary Market Volatility.

[35] *See* supra note 19.

[36] In addition to the existing obligations under the rules of NYSE Arca Equities regarding the production of books and records, NYSE Arca Equities Rule 4.4 provides restrictions on ETP Holder activities pertaining to books and records.

[37] Each proposed NYSE Rule corresponds to the same rule number as the NYSE Arca Equities rules with which it conforms.

reference assets. The ETP rules will also be modified to require that issuers of securities traded pursuant to UTP under proposed Rules 5E and 8E must notify the Exchange regarding instances of non-compliance. In addition, ETPs traded pursuant to UTP will be subject to certain delisting procedures in proposed Rule 5.5E(m), and the other Exchange rules will make this explicit.

Proposed Rule 5E—Securities Traded

The Exchange proposes to add introductory language under the main heading of proposed Rule 5E, which states that the provisions of proposed Rule 5E would apply only to the trading pursuant to UTP of ETPs, and would not apply to the listing of ETPs on the Exchange. The Exchange is proposing this language to clarify that the rules incorporated in proposed Rule 5E should not be interpreted to be listing requirements of the Exchange, but rather, requirements that pertain solely to the trading of ETPs pursuant to UTP on the Pillar platform.

The Exchange proposes to add Rules 5.2E(j)(2)–(j)(7), which would be substantially identical to NYSE Arca Equities Rules 5.2(j)(2)–(j)(7). These proposed rules would permit the Exchange to trade pursuant to UTP the following:

- Equity Linked Notes that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(2);
- Investment Company Units that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(3);
- Index-Linked Exchangeable Notes that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(4);
- Equity Gold Shares that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(5);
- Equity Index Linked Securities, Commodity-Linked Securities, Currency-Linked Securities, Fixed Income Index-Linked Securities, Futures-Linked Securities, and Multifactor Index-Linked Securities that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(6); and
- Trust Certificates that meet the rules for the trading pursuant to UTP that are contained in proposed Rule 5.2E(j)(7).

The text of these proposed rules is identical to NYSE Arca Equities Rules 5.2(j)(2)–5.2(j)(7), other than certain non-substantive and technical differences explained below.

The Exchange proposes to Reserve paragraphs 5.2E(a)–(i) [38] and (j)(1),[39] to maintain the same rule numbers as the NYSE Arca rules with which it conforms.

Proposed Rule 5.2E(j)(2)—Equity Linked Notes (''ELNs'')

The Exchange is proposing Rule 5.2E(j)(2) to provide rules for the trading pursuant to UTP of ELNs, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 5.2(j)(2).[40]

Proposed Rule 5.2E(j)(3)—Investment Company Units

The Exchange is proposing Rule 5.2E(j)(3) to provide rules for the trading pursuant to UTP of investment company units, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 5.2(j)(3).[41]

Proposed Rule 5.2E(j)(4)—Index-Linked Exchangeable Notes

The Exchange is proposing Rule 5.2E(j)(4) to provide rules for the trading pursuant to UTP of index-linked exchangeable notes, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive changes between this proposed rule and NYSE Arca Equities Rule 5.2(j)(4): [42]

- To qualify for listing and trading under NYSE Arca Equities Rule 5.2(j)(4), an index-linked exchangeable note and its issuer must meet the criteria in NYSE Arca Equities Rule 5.2(j)(1) (Other Securities), except that the minimum public distribution will be 150,000 notes with a minimum of 400 public note-holders, except, if traded in thousand dollar denominations then there is no minimum public distribution and number of holders.

Because the Exchange does not have and is not proposing a rule for ''Other Securities'' comparable to NYSE Arca Rule 5.2(j)(1), the Exchange proposes to reference NYSE Arca Equities Rule 5.1(j)(1) in subparagraphs (a) and (c) of proposed Rule 5.2E(j)(4) in establishing the criteria that an issuer and issue must satisfy.[43]

- To qualify for listing and trading under NYSE Arca Equities Rule 5.2(j)(4), an index to which an exchangeable note is linked and its underlying securities must meet (i) the procedures in NYSE Arca Options Rules 5.13(b)–(c); or (ii) the criteria set forth in subsections (C) and (D) of NYSE Arca Equities Rule 5.2(j)(2), the index concentration limits set forth in NYSE Arca Options Rule 5.13(b)(6), and Rule 5.13(b)(12) insofar as it relates to Rule 5.13(b)(6). Because the Exchange's rules for listing of index option contracts are described in Rule 901C, the Exchange is proposing to refer to Rule 901C wherever NYSE Arca Options Rule 5.13 [44] is referenced in paragraph (d) of proposed Rule

[38] NYSE Arca Equities Rules 5.2(a) pertains to applications for admitting securities to list on NYSE Arca and NYSE Arca Equities Rule 5.2(b) pertains to NYSE Arca's unique two-tier listing structure. As these rules pertain to specific listing criteria for NYSE Arca and not trading ETPs pursuant to UTP, the Exchange is not proposing similar rules. Because NYSE Arca Equities Rules 5.2(c)–(g) relate to listing standards for securities that are not ETPs, the Exchange's listing rules contained in the NYSE MKT Company Guide would apply and it is not proposing rule changes related to such securities. Finally, NYSE Arca Equities Rule 5.2(h) pertains to Unit Investment Trusts (''UITs''). The Exchange proposes to trade any UITs pursuant to UTP under proposed Rule 5.2E(j)(3) (Investment Company Units) or proposed Rule 8.100E (Portfolio Depository Receipts).

[39] NYSE Arca Equities Rule 5.2(j)(1) pertains to ''Other Securities'' that are not otherwise covered by the requirements contained in the other listing rules of NYSE Arca Equities. As the Exchange is proposing only the rules that are necessary for the Exchange to trade ETPs pursuant to UTP, the Exchange is not proposing a rule comparable to NYSE Arca Equities 5.2(j)(1).

[40] *See,* NYSE Arca Equities Rule 5.2(j)(2). *See, also,* Securities Exchange Act Release No. 50319 (September 7, 2004), 69 FR 55204 (September 13, 2004) (SR–PCX–2004–75); Securities Exchange Act Release No. 56924 (December 7, 2007), 72 FR 70918 (December 13, 2007) (SR–NYSEArca–2007–98); Securities Exchange Act Release No. 58745 (October 7, 2008), 73 FR 60745 (October 14, 2008) (SR–NYSEArca-2008–94).

[41] *See,* NYSE Arca Equities Rule 5.2(j)(3). *See, also,* Securities Exchange Act Release No. 44551 (July 12, 2001), 66 FR 37716 (July 19, 2001) (SR–PCX–2001–14); Securities Exchange Act Release No. 40603 (November 3, 1998), 63 FR 59354 (November 3, 1998) (SR–PCX–98–29).

[42] *See* NYSE Arca Equities Rule 5.2(j)(4). *See, also,* Securities Exchange Act Release No. 49532 (April 7, 2004), 69 FR 19593 (April 13, 2004) (SR–PCX–2004–01).

[43] The Exchange will monitor for any changes to the rules of NYSE Arca, and will amend its rules accordingly to conform to the rules of NYSE Arca. The Exchange notes that it is proposing to cross-reference to the rules of an affiliate of the Exchange, which will facilitate monitoring for changes to such rules.

[44] Commentary .03 to Exchange Rule 901C is substantially identical to NYSE Arca Options Rule 5.13, and sets forth criteria for narrow-based and micro narrow-based indexes on which an options contract may be listed without filing a proposed rule change under Section 19(b) of the Exchange Act.

5.2E(j)(4). The Exchange would apply the criteria set forth in Rule 901C in determining whether an index underlying an index-linked exchangeable note satisfies the requirements of Rule 5.2E(j)(4)(d).

• Correction of a typographical error in NYSE Arca Equities Rule 5.2(j)(4)(f)((iii), so that proposed Rule 5.2E(j)(4)(f)((iii) reads ''further dealings on the Exchange,'' rather than ''further dealings of the Exchange,'' as is currently drafted in NYSE Arca Equities Rule 5.2(j)(4)(f)(iii).

Proposed Rule 5.2E(j)(5)—Equity Gold Shares

The Exchange is proposing Rule 5.2E(j)(5) to provide rules for the trading pursuant to UTP of equity gold shares, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 5.2(j)(5).[45]

Proposed Rule 5.2E(j)(6)—Index-Linked Securities

The Exchange is proposing Rule 5.2E(j)(6) to provide rules for the trading pursuant to UTP of equity index-linked securities, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive changes between this proposed rule and NYSE Arca Equities Rule 5.2(j)(6): [46]

• To qualify for listing and trading under NYSE Arca Equities Rule 5.2(j)(6), both the issue and issuer of an index-linked security must meet the criteria in NYSE Arca Equities Rule 5.2(j)(1) (Other Securities), with certain specified exceptions. Because the Exchange does not have and is not proposing a rule for ''Other Securities'' comparable to NYSE Arca Rule 5.1(j)(1), the Exchange proposes to reference NYSE Arca Equities Rule 5.1(j)(1) in proposed Rule 5.2E(j)(6)(A)(a) establishing the criteria that an issue and issuer must satisfy.[47]

• The listing standards for Equity Index-Linked Securities in NYSE Arca Equities Rule 5.2(j)(6) reference NYSE Arca Options Rule 5.3 in describing the criteria for securities that compose 90% of an index's numerical value and at least 80% of the total number of components. Because the Exchange's rules for establishing the criteria for underlying securities of put and call options contracts is described in Rule 915, the Exchange proposes to reference to Rule 915 [48] wherever NYSE Arca Options Rule 5.3 is referenced in paragraph (B)(I)(1)(b)(2)(iv) of proposed Rule 5.2E(j)(6), to establish the initial listing criteria that an index must meet to trade pursuant to UTP.

Proposed Rule 5.2E(j)(7)—Trust Certificates

The Exchange is proposing Rule 5.2E(j)(7) to provide rules for the trading pursuant to UTP of trust certificates, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive change between this proposed rule and NYSE Arca Equities Rule 5.2(j)(7): [49]

• Commentary .08 to NYSE Arca Equities Rule 5.2(j)(7) contains a cross-reference to NYSE Arca Rule 9.2.[50] Because the Exchange does not currently have and is not proposing to add rules that pertain to the opening of accounts that are approved for options trading, the Exchange proposes to require an ETP Holder to ensure that the account of a holder of a Trust Certificate that is exchangeable, at the holder's option, into securities that participate in the return of the applicable underlying asset is approved for options trading in accordance with the rules of a national securities exchange.

Proposed Rule 8E—Trading of Certain Exchange Traded Products

The Exchange proposes to add introductory language under the main heading of proposed Rule 8E, which states that the provisions of proposed Rule 8E would apply only to the trading pursuant to UTP of ETPs, and would not apply to the listing of ETPs on the Exchange. The Exchange is proposing this language to clarify that the rules incorporated in proposed Rule 8E should not be interpreted to be listing requirements of the Exchange, but rather, requirements that pertain solely to the trading of ETPs pursuant to UTP on the Pillar platform.

The Exchange proposes to add Rule 8E, which would be substantially identical to Sections 1 and 2 of NYSE Arca Equities Rule 8. These proposed rules would permit the Exchange to trade pursuant to UTP the following: Currency and Index Warrants, Portfolio Depositary Receipts, Trust Issued Receipts, Commodity-Based Trust Shares, Currency Trust Shares, Commodity Index Trust Shares, Commodity Futures Trust Shares, Partnership Units, Paired Trust Shares, Trust Units, Managed Fund Shares, and Managed Trust Securities.[51]

The Exchange proposes to Reserve Rule 8.100E(g), to maintain the same rule numbers as the NYSE Arca rules with which it conforms.

The text of proposed Rule 8E is identical to Sections 1 and 2 of NYSE Arca Equities Rule 8, other than certain non-substantive and technical differences explained below. The Exchange also proposes that all of the General Definitional Term Changes described under proposed Rule 5E above would also apply to proposed Rule 8E.

Proposed Rules 8.1E–8.13E—Currency and Index Warrants

The Exchange is proposing Rules 8.1E–8.13E to provide rules for the trading pursuant to UTP (including sales-practice rules such as those relating to suitability and supervision of accounts) of currency and index warrants, so that they may be traded on the Exchange pursuant to UTP.[52]

In addition to the General Definitional Term Changes described above under proposed Rule 5E, the Exchange is

[45] *See,* NYSE Arca Equities Rule 5.2(j)(5); *See, also,* Securities Exchange Act Release No. 51245 (February 23, 2005), 70 FR 10731 (March 4, 2005) (SR–PCX–2004–117).

[46] *See,* NYSE Arca Equities Rule 5.2(j)(6); *See, also,* Securities Exchange Act Release No. 54231 (July 27, 2006), 71 FR 44339 (August 4, 2006) (SR–NYSEArca–2006–19); Securities Exchange Act Release No. 59332 (January 30, 2009), 74 FR 6338 (February 6, 2009) (SR–NYSEArca–2008–136); Securities Exchange Act Release No. 52204 (August 3, 2005), 70 FR 46559 (August 10, 2005) (SR–PCX–2005–63).

[47] *See* supra note 43.

[48] Rule 915 is substantially identical to NYSE Arca Options Rule 5.3, and establishes the criteria for underlying securities of put and call option contracts listed on the exchange.

[49] *See,* NYSE Arca Equities Rule 5.2(j)(7); *See, also,* Securities Exchange Act Release No. 59051 (December 4, 2008), 73 FR 75155 (December 10, 2008) (SR–NYSEArca–2008–123); Securities Exchange Act Release No. 58920 (November 7, 2008), 73 FR 68479 (November 18, 2008) (SR–NYSEArca–2008–123).

[50] Commentary .08 to NYSE Arca Equities Rule 5.2(j)(7) states that Trust Certificates may be exchangeable at the option of the holder into securities that participate in the return of the applicable underlying asset. In the event that the Trust Certificates are exchangeable at the option of the ETP Holder and contains an Index Warrant, then the ETP Holder must ensure that the ETP Holder's account is approved in accordance with Rule 9.2 in order to exercise such rights.

[51] The Exchange is only proposing listing and trading rules necessary to trade ETPs pursuant to UTP. Accordingly, the Exchange is not proposing a rule comparable to NYSE Arca Equities Rule 8.100(g).

[52] NYSE Arca Equities Rules 8.1–8.13 all pertain to the listing and trading requirements (including sales-practice rules such as those relating to suitability and supervision of accounts) for Currency and Index Warrants. *See,* Section 1 of NYSE Arca Equities Rule 8; *See, also,* Securities Exchange Act Release Nos. 44983 (October 25, 2001), 66 FR 55225 (November 1, 2001) (SR–PCX–00–25); 59886 (May 7, 2009), 74 FR 22779 (May 14, 2009) (SR–NYSEArca–2009–39).

proposing the following non-substantive changes between these proposed rules and NYSE Arca Equities Rules 8.1–8.13 (Currency and Index Warrants):

Proposed Rule 8.1E—General

• Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.1.

Proposed Rule 8.2E—Definitions

• Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.2.

Proposed Rule 8.3E—Listing of Currency and Index Warrants

• NYSE Arca Equities Rule 8.3 references NYSE Arca Equities Rule 5.2(c) to establish the earnings requirements that a warrant issuer is required to substantially exceed. Because the Exchange does not currently have and is not proposing a rule similar to NYSE Arca Equities Rule 5.2(c), the Exchange proposes to include the earnings requirements set forth in NYSE Arca Equities Rule 5.2(c) in subparagraph (a) of proposed Rule 8.3E.

Proposed Rule 8.4E—Account Approval

• The account approval rules of NYSE Arca Equities Rule 8.4 reference NYSE Arca Equities Rule 9.18(b) in describing the criteria that must be met for opening up a customer account for options trading. Because the Exchange's account approval rules are described in Rule 921,[53] the Exchange would cross-reference to Rule 921 wherever NYSE Arca Rule 9.18(b) is referenced in proposed Rule 8.4E.

Proposed Rule 8.5E—Suitability

• The account suitability rules of NYSE Arca Equities Rule 8.5 reference NYSE Arca Equities Rule 9.18(c) in describing rules that apply to recommendations made in stock index, currency index and currency warrants. Because the Exchange's account suitability rules are described in Rule 923,[54] the Exchange would cross-reference to Rule 923 wherever NYSE Arca Rule 9.18(c) is referenced in proposed Rule 8.5E.

Proposed Rule 8.6E—Discretionary Accounts

• The rules of NYSE Arca Equities Rule 8.6 reference the fact that NYSE Arca Equities Rule 9.6(a) will not apply to customer accounts insofar as they may relate to discretion to trade in stock index, currency index and currency warrants, and that NYSE Arca Equities Rule 9.18(e) will apply to such discretionary accounts instead. Because the Exchange's discretionary account rules for equity trading are described in Rule 408-Equities,[55] the Exchange would cross-reference to Rule 408-Equities wherever NYSE Arca Equities Rule 9.6(a) is referenced in proposed Rule 8.6E. Because the Exchange's discretionary account rules for options trading are described in Rule 924,[56] the Exchange would cross-reference to Rule 924 wherever NYSE Arca Equities Rule 9.18(e) is referenced in proposed Rule 8.6E.

Proposed Rule 8.7E—Supervision of Accounts

• The account supervision rules of NYSE Arca Equities Rule 8.7 reference NYSE Arca Equities Rule 9.18(d) in describing rules that apply to the supervision of customer accounts in which transactions in stock index, currency index or currency warrants are effected. Because the Exchange's rules that apply to the supervision of customer accounts of such nature are described in Rule 922,[57] the Exchange would cross-reference to Rule 922 wherever NYSE Arca Equities Rule 9.18(d) is referenced in proposed Rule 8.7E.

Proposed Rule 8.8E—Customer Complaints

• The customer complaint rules of NYSE Arca Equities Rule 8.8 reference NYSE Arca Equities Rule 9.18(l) in describing rules that apply to customer complaints received regarding stock index, currency index or currency warrants. Because the Exchange's rules that govern doing a public business in options are described in Rule 932,[58] the Exchange would cross-reference to Rule 932 wherever NYSE Arca Equities Rule 9.18(l) is referenced in proposed Rule 8.8E.

Proposed Rule 8.9E—Prior Approval of Certain Communications to Customers

• The rules pertaining to communications to customers regarding stock index, currency index and currency warrants described in NYSE Arca Equities Rule 8.9 reference NYSE Arca Equities Rule 9.28. Because the Exchange's rules that govern advertisements, market letters and sales literature relating to options are described in Rule 991,[59] the Exchange would cross-reference to Rule 991 wherever NYSE Arca Equities Rule 9.28 is referenced in proposed Rule 8.9E.

Proposed Rule 8.10E—Position Limits

• Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.10.

Proposed Rule 8.11E—Exercise Limits

• Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.11.

Proposed Rule 8.12E—Trading Halts or Suspensions

• Other than with respect to the General Definitional Term Changes described above, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.12.

Proposed Rule 8.13E—Reporting of Warrant Positions

• The Exchange proposes to correct a typographical error in NYSE Arca Equities Rule 8.13. Proposed Rule 8.13E would read ''whenever a report shall be required to be filed with respect to an account pursuant to this Rule, the ETP Holder filing the report shall file with the Exchange such additional periodic reports with respect to such account as the Exchange may from time to time prescribe,'' rather than ''whenever a report shall be required to be filed with respect to an account pursuant to this Rule, the ETP Holder filing the same file with the Exchange such additional periodic reports with respect to such account as the Exchange may from time

[53] Rule 921 is substantially similar to NYSE Arca Equities Rule 9.18(b), and establishes criteria that must be met to open up a customer account for options trading.

[54] Rule 923 is substantially similar to NYSE Arca Equities Rule 9.18(c), and establishes suitability rules that pertain to recommendations in stock index, currency index and currency warrants.

[55] Rule 408-Equities is substantially similar to NYSE Arca Equities Rule 9.6(a), and pertains to the rules of the Exchange with regard to discretionary power in customer accounts for equity trading.

[56] Rule 924 is substantially similar to NYSE Arca Equities Rule 9.18(e), and establishes rules pertaining to discretion as to customer accounts for options trading.

[57] Rule 922 is substantially similar to NYSE Arca Equities Rule 9.18(d), and establishes account supervision rules that apply to the supervision of customer accounts in which transactions in stock index, currency index and currency warrants are effected.

[58] Rule 932 is substantially similar to NYSE Arca Equities Rule 9.18(l), and establishes rules that apply to customer complaints received regarding stock index, currency index or currency warrants.

[59] Rule 991 is substantially similar to NYSE Arca Equities Rule 9.28, and establishes rules regarding advertisements, sales literature and educational material issued to any customer or member of the public pertaining to stock index, currency index or currency warrants.

to time prescribe,'' as in current NYSE Arca Equities Rule 8.13.

Proposed Rule 8.100E—Portfolio Depositary Receipts

The Exchange is proposing Rule 8.100E to provide rules for the trading pursuant to UTP of portfolio depositary receipts, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.100.[60]

Proposed Rule 8.200E—Trust Issued Receipts

The Exchange is proposing Rule 8.200E to provide rules for the trading pursuant to UTP of trust issued receipts, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.200.[61]

Proposed Rule 8.201E—Commodity-Based Trust Shares

The Exchange is proposing Rule 8.201E to provide rules for the trading pursuant to UTP of commodity-based trust shares, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.201.[62]

Proposed Rule 8.202E—Currency Trust Shares

The Exchange is proposing Rule 8.202E to provide rules for the trading pursuant to UTP of currency trust shares, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.202.[63]

Proposed Rule 8.203E—Commodity Index Trust Shares

The Exchange is proposing Rule 8.203E to provide rules for the trading pursuant to UTP of commodity index trust shares, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive change between this proposed rule and NYSE Arca Equities Rule 8.203:[64]

• Correction of a typographical error in NYSE Arca Equities Rule 8.203(d), so that proposed Rule 8.203E(d) reads ''one or more'' in the first sentence, rather than ''one more more,'' as is currently drafted in NYSE Arca Equities Rule 8.203(d).

Proposed Rule 8.204E—Commodity Futures Trust Shares

The Exchange is proposing Rule 8.204E to provide rules for the trading pursuant to UTP of commodity futures trust shares, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.204.[65]

Proposed Rule 8.300E—Partnership Units

The Exchange is proposing Rule 8.300E to provide rules for the trading pursuant to UTP of partnership units, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.300.[66]

Proposed Rule 8.400E—Paired Trust Shares

The Exchange is proposing Rule 8.400E to provide rules for the trading pursuant to UTP of paired trust shares, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive change between this proposed rule and NYSE Arca Equities Rule 8.400:[67]

• To be consistent with the Exchange's definitions proposed in Rule 5.1E(b), the Exchange proposes to substitute the terms ''security'' and ''equity securities'' (as such terms are defined in proposed Rule 5.1E(b)[68]) in subparagraph (a) of proposed Rule 8.400E[69] instead of the terms ''security,'' ''securities'' and ''derivative products'' (as used in the rules of NYSE Arca Equities) to refer to the definition of Paired Trust Shares. The Exchange proposes this change because it believes it is more accurate to refer to paired trust shares as securities and equity securities.

Proposed Rule 8.500E—Trust Units

The Exchange is proposing Rule 8.500E to provide rules for the trading pursuant to UTP of trust units, so that they may be traded on the Exchange pursuant to UTP.

In addition to the General Definitional Term Changes described above, the Exchange is proposing the following non-substantive change between this proposed rule and NYSE Arca Equities Rule 8.500:[70]

[60] *See,* NYSE Arca Equities Rule 8.100; *See, also,* Securities Exchange Act Release No. 39461 (December 17, 1997), 62 FR 67674 (December 29, 1997) (SR–PCX–97–35); Securities Exchange Act Release No. 39188 (October 2, 1997), 62 FR 53373 (October 14, 1997) (SR–PCX–97–35); Securities Exchange Act Release No. 44551 (July 12, 2001), 66 FR 37716 (July 19, 2001) (SR–PCX–2001–14).

[61] *See,* NYSE Arca Equities Rule 8.200; *See, also,* Securities Exchange Act Release No. 58162 (July 15, 2008), 73 FR 42391 (July 21, 2008) (SR–NYSEArca–2008–73); Securities Exchange Act Release No. 44182 (April 16, 2001), 66 FR 21798 (April 16, 2001) (SR–PCX–2001–01).

[62] *See,* NYSE Arca Equities Rule 8.201; *See, also,* Securities Exchange Act Release No. 51067 (January 21, 2005), 70 FR 3952 (January 27, 2005) (SR–PCX–2004–132).

[63] *See,* NYSE Arca Equities Rule 8.202; *See, also,* Securities Exchange Act Release No. 60065 (June 8, 2009), 74 FR 28310 (June 15, 2009) (SR–NYSEArca–2009–47); Securities Exchange Act Release No. 53253 (February 8, 2006), 71 FR 8029 (February 15, 2006) (SR–PCX–2005–123).

[64] *See,* NYSE Arca Equities Rule 8.203; *See, also,* Securities Exchange Act Release No. 54025 (June 21, 2006), 71 FR 36856 (June 28, 2006) (SR–NYSEArca–2006–12).

[65] *See,* NYSE Arca Equities Rule 8.204; *See, also,* Securities Exchange Act Release No. 57838 (May 20, 2008), 73 FR 30649 (May 28, 2008) (SR–NYSEArca–2008–09); Securities Exchange Act Release No. 57636 (April 8, 2008), 73 FR 20344 (April 15, 2008) (SR–NYSEArca–2008–09).

[66] *See,* NYSE Arca Equities Rule 8.300; *See, also,* Securities Exchange Act Release No. 53875 (May 25, 2006), 71 FR 32164 (January 2, 2006) (SR–NYSEArca–2006–11).

[67] *See,* NYSE Arca Equities Rule 8.400; *See, also,* Securities Exchange Act Release No. 55033 (December 29, 2006), 72 FR 1253 (January 10, 2007) (SR–NYSEArca–2006–75); Securities Exchange Act Release No. 58312 (August 5, 2008), 73 FR 46689 (August 11, 2008) (SR–NYSEArca–2008–63).

[68] Proposed Rule 5.1E(b) defines the term ''security'' to mean any security as defined in Rule 3(a)(10) under the Act and the term ''equity security'' to include any equity security defined as such pursuant to Rule 3a11–1 under the Act.

[69] NYSE Arca Equities Rule 8.400(a) reads as follows: ''(a) Applicability. The provisions in this Rule are applicable only to Paired Trust Shares. In addition, except to the extent inconsistent with this Rule, or unless the context otherwise requires, the rules and procedures of the Board of Directors shall be applicable to the trading on the Corporation of such securities. Paired Trust Shares are included within the definition of ''security,'' ''securities'' and ''derivative products'' as such terms are used in the Rules of the Corporation.''

[70] *See,* NYSE Arca Equities Rule 8.500; *See, also,* Securities Exchange Act Release No. 57059 (December 28, 2007), 73 FR 909 (January 4, 2008) (SR–NYSEArca–2006–76); Securities Exchange Act Release No. 63129 (October 19, 2010), 75 FR 65539 (October 25, 2010) (SR–NYSEArca–2010–91).

• To be consistent with the Exchange's definitions proposed in Rule 5.1E(b), the Exchange proposes to substitute the terms ''security'' and ''equity securities'' (as such terms are defined in proposed Rule 5.1E(b)[71]) in subparagraph (a) of proposed Rule 8.500E[72] instead of the terms ''security,'' ''securities'' and ''derivative products'' (as used in the rules of NYSE Arca Equities) to refer to the definition of Trust Units. The Exchange proposes this change because it believes it is more accurate to refer to trust units as securities and equity securities.

Proposed Rule 8.600E—Managed Fund Shares

The Exchange is proposing Rule 8.600E to provide rules for the trading pursuant to UTP of managed fund shares, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.600.[73]

Proposed Rule 8.700E—Managed Trust Securities

The Exchange is proposing Rule 8.700E to provide rules for the trading pursuant to UTP of managed trust securities, so that they may be traded on the Exchange pursuant to UTP.

Other than with respect to the General Definitional Term Changes described above under proposed Rule 5E, there are no differences between this proposed rule and NYSE Arca Equities Rule 8.700.[74]

Proposed Rule 7.18E—Requirements for Halts on Pillar Platform

In conjunction with the implementation of the Pillar trading platform for trading of securities pursuant to UTP, the Exchange proposes new Rule 7.18E, under Rule 7E, which would govern trading halts in symbols trading on the Pillar platform.

Other than with respect to the proposed General Definitional Term Changes described above, there are no differences between proposed Rules 7.18E(a)–(d)(1) and NYSE Arca Equities Rules 7.18(a)–(d)(1). The Exchange does not propose rules based on NYSE Arca Equities Rule 7.18(d)(2) because the Exchange would not be a listing venue under Rules 5E and 8E.

Finally, proposed Rules 7.18E would use the terms and definitions that were added in the Pillar Framework Filing and proposed as new Rules 1.1E(aaa) and (bbb), described above. The Exchange also proposes to define the term ''UTP regulatory halt'' in Rule 1.1E(kk).[75] Proposed Rule 1.1E(kk) would define the term ''UTP Regulatory Halt'' to mean a trade suspension, halt, or pause called by the UTP Listing Market[76] in a UTP Security[77] that requires all market centers to halt trading in that security.[78]

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[79] in general, and furthers the objectives of Section 6(b)(5) of the Act,[80] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, 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 by providing for the trading of securities, including UTP Exchange Traded Products, on the Exchange pursuant to UTP, subject to consistent and reasonable standards. Accordingly, the proposed rule change would contribute to the protection of investors and the public interest because it may provide a better trading environment for investors and, generally, encourage greater competition between markets.

The Exchange believes the proposed rule change also supports the principals of Section 11A(a)(1)[81] of the Act in that it seeks to ensure the economically efficient execution of securities transactions and fair competition among brokers and dealers and among exchange markets. The proposed rule change also supports the principles of Section 12(f) of the Act, which govern the trading of securities pursuant to a grant of unlisted trading privileges consistent with the maintenance of fair and orderly markets, the protection of investors and the public interest, and the impact of extending the existing markets for such securities.

The Exchange believes that the proposed rule change is consistent with these principles. By providing for the trading of securities on the Exchange on a UTP basis, the Exchange believes its proposal will lead to the addition of liquidity to the broader market for these securities and to increased competition among the existing group of liquidity providers. The Exchange also believes that, by so doing, the proposed rule change would encourage the additional utilization of, and interaction with, the exchange market, and provide market participants with improved price discovery, increased liquidity, more competitive quotes and greater price improvement for securities traded pursuant to UTP.

The Exchange further believes that enhancing liquidity by trading securities on a UTP basis would help raise investors' confidence in the fairness of the market, generally, and their transactions in particular. As such, the general UTP trading rule would foster cooperation and coordination with persons engaged in facilitating securities transactions, enhance the mechanism of a free and open market, and promote fair and orderly markets in securities on the Exchange.

In addition, the trading criteria set forth in proposed Rule 5.1E(a) is intended to protect investors and the public interest. The requirements for trading securities pursuant to UTP, as proposed herein in a single, consolidated Rule 5.1E(a), are at least as stringent as those of any other national securities exchange and, specifically, are based on the consolidated rules for trading UTP securities established by other national securities exchanges.[82] Consequently, the proposed rule change is consistent with the protection of investors and the public interest.

[71] *See* supra note 74 [sic].

[72] NYSE Arca Equities Rule 8.500(a) reads as follows: ''(a) Applicability. The provisions in this Rule are applicable only to Trust Units. In addition, except to the extent inconsistent with this Rule, or unless the context otherwise requires, the rules and procedures of the Board of Directors shall be applicable to the trading on the Corporation of such securities. Trust Units are included within the definition of ''security,'' ''securities'' and ''derivative products'' as such terms are used in the Rules of the Corporation.''

[73] *See,* NYSE Arca Equities Rule 8.600; *See, also,* Securities Exchange Act Release No. 57395 (February 28, 2008), 73 FR 11974 (March 5, 2008) (SR–NYSEArca–2008–25); Securities Exchange Act Release No. 57619 (April 4, 2008), 73 FR 19544 (April 10, 2008) (SR–NYSEArca–2008–25).

[74] *See,* NYSE Arca Equities Rule 8.700; *See, also,* Securities Exchange Act Release No. 60064 (June 8, 2009), 74 FR 28315 (June 15, 2009) (SR–NYSEArca–2009–30); Securities Exchange Act Release No. 59835 (April 28, 2009), 74 FR 21041 (May 6, 2009) (SR–NYSEArca–2009–30).

[75] The Pillar Framework Filing added Rule 1.1E(kk) on a ''reserved'' basis.

[76] *See,* proposed Rule 1.1E(jj).

[77] *See,* proposed Rule 1.1E(ii).

[78] This proposed definition is identical to the definition of ''UTP Regulatory Halt'' in NYSE Arca Equities Rule 1.1(kk).

[79] 15 U.S.C. 78f(b).

[80] 15 U.S.C. 78f(b)(5).

[81] 15 U.S.C. 78k–1(a)(1).

[82] *See* NSX Rule 15.9 and Securities Exchange Act Release No. 57448 (March 6,2008), 73 FR 13597 (March 13, 2008) (SR–NSX–2008–05); Phlx Rule 803(o) and Securities Exchange Act Release No. 57806 (May 9, 2008), 73 FR 28541 (May 16, 2008) (SR–Phlx2008–34); ISE Rule 2101 and Securities Exchange Act Release No. 57387 (February 27, 2008), 73 FR 11965 (March 5, 2008) (SR–ISE–2007–99).

Additionally, the proposal is designed to prevent fraudulent and manipulative acts and practices, as trading pursuant to UTP is subject to existing Exchange trading rules, together with specific requirements for registered market makers, books and record production, surveillance procedures, suitability and prospectus requirements, and requisite the Exchange approvals, all set forth above.

The proposed rule changes accomplish these objectives by enhancing Exchange rules by clarifying that most initial listing standards, as well as certain representations included in Exchange Rule Filings to list an ETP, are considered continued listing standards. Additionally, the ETP rules will also require that issuers of securities listed under proposed Rules 5E and 8E must notify the Exchange regarding instances of non-compliance and to clarify that deficiencies will be subject to the delisting process in proposed Rule 5.5E(m). The Exchange believes that these proposed rules will enhance the Exchange's rules, thereby serving to improve the national market system and protect investors and the public interest.

The proposal is also designed to promote just and equitable principles of trade by way of initial and continued listing standards which, if not maintained, will result in the discontinuation of trading in the affected products. These requirements, together with the applicable Exchange trading rules (which apply to the proposed products), ensure that no investor would have an unfair advantage over another respecting the trading of the subject products. On the contrary, all investors will have the same access to, and use of, information concerning the specific products and trading in the specific products, all to the benefit of public customers and the marketplace as a whole.

The proposal is intended to ensure that investors receive up-to-date information on the value of certain underlying securities and indices in the products in which they invest, and protect investors and the public interest, enabling investors to: (i) Respond quickly to market changes through intra-day trading opportunities; (ii) engage in hedging strategies; and (iii) reduce transaction costs for trading a group or index of securities.

Furthermore, the proposal is designed to remove impediments to and perfect the mechanism of a free and open market and a national market system by adopting rules that will lead ultimately to the trading pursuant to UTP of the proposed new products on the Exchange, just as they are currently traded on other exchanges. The proposed changes do nothing more than match Exchange rules with what is currently available on other exchanges. The Exchange believes that by conforming its rules and allowing trading opportunities on the Exchange that are already allowed by rule on another market, the proposal would offer another venue for trading Exchange Traded Products and thereby promote broader competition among exchanges. The Exchange believes that individuals and entities permitted to make markets on the Exchange in the proposed new products should enhance competition within the mechanism of a free and open market and a national market system, and customers and other investors in the national market system should benefit from more depth and liquidity in the market for the proposed new products.

The proposed change is not designed to address any competitive issue, but rather to adopt new rules that are word-for-word identical to the rules of NYSE Arca (other than with respect to certain non-substantive and technical amendments described above), to support the Exchange's new Pillar trading platform. As discussed in detail above, with this rule filing, the Exchange is not proposing to change its core functionality, but rather to adopt a rule numbering framework and rules based on the rules of NYSE Arca. The Exchange believes that the proposed rule change would promote consistent use of terminology to support the Pillar trading platform on both the Exchange and its affiliate, NYSE Arca, thus making the Exchange's rules easier to navigate.

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. To the contrary, the current variances between the Exchange's rules for the trading pursuant to UTP and the rules of other exchanges limit competition in that there are certain products that the Exchange cannot trade pursuant to UTP, while other exchanges can trade such products. Thus, approval of the proposed rule change will promote competition because it will allow the Exchange to compete with other national securities exchanges for the trading of securities pursuant to UTP.

The Exchange believes that proposed Rules 5E and 8E and the related notification requirements will have no impact on competition. Furthermore, since T&M Staff has provided the same guidance regarding ETP continued listing requirements to all exchanges, the Exchange believes that there will be no effect on competition.

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. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change, as amended, is consistent with the Section 6(b)(5) of the Act, the other provisions of the Act, and the rules and regulations thereunder. In particular, the Commission invites the written views of interested persons concerning the sufficiency of the Exchange's statements in support of Amendment No. 1 to the proposed rule change, which are set forth above, and the specific requests for comment set forth in the Order Instituting Proceedings.[83] 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 email to *rule-comments@sec.gov*. Please include File Number SR–NYSEMKT–2016–103 in 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–NYSEMKT–2016–103. This file number should be included in the subject line if email 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

[83] *See* Order Instituting Proceedings, *supra* note 7, at 12252.

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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing will also 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 Number SR–NYSEMKT–2016–103 and should be submitted on or before May 12, 2017.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[84]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08460 Filed 4–26–17; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80503; File No. SR–ICC–2017–004]

Self-Regulatory Organizations; ICE Clear Credit LLC; Notice and Immediate Effectiveness of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice Relating to Clearance of Additional Credit Default Swap Contracts

April 21, 2017.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934,[1] and Rule 19b–4,[2] notice is hereby given that on April 7, 2017, ICE Clear Credit LLC (''ICC'') filed with the Securities and Exchange Commission the proposed rule change as described in Items I, II, and III below, which Items have been prepared primarily by ICC. ICC filed the proposed rule change pursuant to Section 19(b)(3)(A) of the Act,[3] and Rule 19b–4(f)(4)(i) thereunder,[4] so that the proposal was effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change, security-based swap submission, or advance notice from interested persons.

I. Clearing Agency's Statement of the Terms of Substance of the Proposed Rule Change, Security-Based Swap Submission, or Advance Notice

The principal purpose of the proposed change is for ICC to provide for the clearance of clearing participant (''CP'') single name credit default swap contracts (''CDS'') referencing ICC clearing participants (''CP CDS Contracts'').

II. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change, Security-Based Swap Submission, or Advance Notice

In its filing with the Commission, ICC included statements concerning the purpose of and basis for the proposed rule change, security-based swap submission, or advance notice and discussed any comments it received on the proposed rule change, security-based swap submission, or advance notice. The text of these statements may be examined at the places specified in Item IV below. ICC has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of these statements.

A. Clearing Agency's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change, Security-Based Swap Submission, or Advance Notice

ICC plans to expand its product offering to include CP CDS Contracts. ICC believes the addition of these contracts will benefit the market for credit default swaps by providing market participants the benefits of clearing, including reduction in counterparty risk and safeguarding of margin assets pursuant to clearing house rules. Clearing of the CP CDS Contracts will not require any changes to the ICC Clearing Rules, ICC's Risk Management Framework, ICC's Risk Management Model Description Document, or other policies and procedures constituting rules within the meaning of the Securities Exchange Act of 1934 (''Act'').

The CP CDS Contracts will be cleared pursuant to Subchapters 26B (Standard North American Corporate (''SNAC'') Single Name) and 26H (Standard European Financial Corporate (''STEFC'') Single Name) of the ICC Clearing Rules. Furthermore, the General Wrong Way Risk (''GWWR'') approach, set forth in the ICC Risk Management Model Description Document,[5] will apply to the CP CDS Contracts. This treatment is consistent with ICC's current GWWR approach which applies to all products cleared by ICC within the Sovereign and Banking sectors, following the Bloomberg Industry Classification System (''BICS''), as the CP CDS Contracts are included in the Banking sector, as defined by the BICS.

Section 17A(b)(3)(F) of the Act[6] requires, among other things, that the rules of a clearing agency be designed to promote the prompt and accurate clearance and settlement of securities transactions and, to the extent applicable, derivative agreements, contracts, and transactions and to comply with the provisions of the Act and the rules and regulations thereunder. The CP CDS Contracts will be cleared pursuant to ICC's existing clearing arrangements and related financial safeguards, protections and risk management procedures. Clearing of the CP CDS Contracts will allow market participants an increased ability to manage risk and ensure the safeguarding of margin assets pursuant to clearing house rules. ICC believes that acceptance of the CP CDS Contracts, on the terms and conditions set out in the Rules, is consistent with the prompt and accurate clearance of and settlement of securities transactions and derivative agreements, contracts and transactions cleared by ICC, the safeguarding of securities and funds in the custody or control of ICC, and the protection of investors and the public interest, within the meaning of Section 17A(b)(3)(F) of the Act.[7]

Clearing of the CP CDS Contracts will also satisfy the requirements of Rule 17Ad–22.[8] In particular, in terms of financial resources, ICC will apply its existing initial margin methodology to the additional contracts. ICC believes that this model will provide sufficient initial margin requirements to cover its credit exposure to its clearing members from clearing such contracts, consistent with the requirements of Rule 17Ad–22(b)(2).[9] In addition, ICC believes its Guaranty Fund, under its existing methodology, will, together with the required initial margin, provide sufficient financial resources to support the clearing of the additional contracts consistent with the requirements of Rule

[84] 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. 78s(b)(3)(A).

[4] 17 CFR 240.19b–4(f)(4)(i).

[5] Such GWWR approach is described in rule filing SR–ICC–2015–009. The text of rule filing SR–ICC–2015–009 can be found on ICC's Web site at *https://www.theice.com/clear-credit/regulation.*

[6] 15 U.S.C. 78q–1(b)(3)(F).

[7] 15 U.S.C. 78q–1(b)(3)(F).

[8] 17 CFR 240.17Ad–22.

[9] 17 CFR 240.17Ad–22(b)(2).

17Ad–22(b)(3).[10] ICC also believes that its existing operational and managerial resources will be sufficient for clearing of the additional contracts, consistent with the requirements of Rule 17Ad–22(d)(4),[11] as the new contracts are substantially the same from an operational perspective as existing contracts. Similarly, ICC will use its existing settlement procedures and account structures for the new contracts, consistent with the requirements of Rule 17Ad–22(d)(5), (12) and (15) [12] as to the finality and accuracy of its daily settlement process and avoidance of the risk to ICC of settlement failures. ICC determined to accept the CP CDS Contracts for clearing in accordance with its governance process, which included review of the contracts and related risk management considerations by the ICC Risk Committee and its Board. These governance arrangements are consistent with the requirements of Rule 17Ad–22(d)(8).[13] Finally, ICC will apply its existing default management policies and procedures for the CP CDS Contracts. ICC believes that these procedures allow for it to take timely action to contain losses and liquidity pressures and to continue meeting its obligations in the event of clearing member insolvencies or defaults in respect of the additional single names, in accordance with Rule 17Ad–22(d)(11).[14]

B. Clearing Agency's Statement on Burden on Competition

The CP CDS Contracts will be available to all ICC participants for clearing. The clearing of these CP CDS Contracts by ICC does not preclude the offering of the CP CDS Contracts for clearing by other market participants. Accordingly, ICC does not believe that clearance of the CP CDS Contracts will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

C. Clearing Agency's Statement on Comments on the Proposed Rule Change, Security-Based Swap Submission, or Advance Notice Received From Members, Participants or Others

Written comments relating to the proposed rule change have not been solicited or received. ICC will notify the Commission of any written comments received by ICC.

[10] 17 CFR 240.17Ad–22(b)(3).

[11] 17 CFR 240.17Ad–22(d)(4).

[12] 17 CFR 240.17Ad–22(d)(5), (12) and (15).

[13] 17 CFR 240.17Ad–22(d)(8).

[14] 17 CFR 240.17Ad–22(d)(11).

III. Date of Effectiveness of the Proposed Rule Change, Security-Based Swap Submission, or Advance Notice and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act and paragraph (f)(1) of Rule 19b–4 thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend 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, security-based swap submission, or advance notice 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 email to *rule-comments@sec.gov*. Please include File Number SR–ICC–2017–004 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–ICC–2017–004. This file number should be included on the subject line if email 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, security-based swap submission, or advance notice that are filed with the Commission, and all written communications relating to the proposed rule change, security-based swap submission, or advance notice 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filings will also be available for inspection and copying at the principal office of ICE Clear Credit and on ICE Clear Credit's Web site at *https://www.theice.com/clear-credit/regulation*.

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–ICC–2017–004 and should be submitted on or before May 18, 2017.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[15]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08463 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

[15] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–80504; File No. SR–Phlx–2017–32]

Self-Regulatory Organizations; NASDAQ PHLX, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend Rule 1002 of the Exchange's Rules To Establish Certain Exemptions From Exercise Limits

April 21, 2017.

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 April 11, 2017, NASDAQ PHLX, LLC (''PHLX'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. 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 1002 of the Exchange's Rules, as described in further detail below.

The text of the proposed rule change is available on the Exchange's Web site at *http://www.nasdaqphlx.cchwallstreet.com,* at the principal office of

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

the Exchange, and at 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 Exchange 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 Exchange 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 purpose of the proposed rule change is to amend Rule 1002 of the Exchange's rules (the ''Rules''), which pertains to exercise limits, so that it is more consistent with the rules of PHLX's sister exchange, Nasdaq ISE, LLC (''ISE'').

Although Rule 1001 of the Exchange's Rules provides for numerous exemptions to the position limits that the Exchange imposes, Rule 1002(c) provides that ''[t]he Exchange will not approve exercises exceeding the [exercise] limits established pursuant to this Rule except in highly unusual circumstances.'' Rule 1002(c) further provides that an exemption request must be made in writing and set forth the facts justifying the exemption, and that such a request is subject to the approval of an Options Exchange Official.[3]

In contrast to PHLX, the rules of ISE do not impose such onerous requirements for approving exemptions from exercise limits. ISE Rule 414(c) states that ''[f]or a Member that has been granted an exemption to position limits pursuant to Rule 413(a), the number of contracts which can be exercised over a five (5) business day period shall equal the Member's exempted position.'' Rule 413(a) provides for equity hedge and delta-based equity hedge position limit exemptions.

The Exchange proposes to harmonize Rule 1002 with ISE Rule 414(c) by authorizing exercise limit exemptions as a matter of course, and without requiring members and member organizations to submit written requests and obtain specific approvals for these exemptions, to the extent that such members or member organizations are exempt from position limits as set forth in Rule 1001. Specifically, the Exchange proposes to replace the existing language of Rule 1002(c) with the language of ISE Rule 414(c), except that the Exchange proposes to specify that exercise exemption limits are available to members and member organizations to the extent that they are exempt from position limits pursuant to Rule 1001(l) (exempting equity option hedges) or Rule 1001(n) (exempting delta-based equity hedges).

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[4] in general, and furthers the objectives of Section 6(b)(5) of the Act,[5] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that its proposal promotes just and equitable principles of trade and a free and open market by granting exercise limit exemptions to a similar extent and under similar circumstances as do other options exchanges, while eliminating the onerous requirement that the Exchange's members and member organizations must obtain approval for such exemptions in each instance and pursuant to written requests. Additionally, broadening the availability of exercise limit exemptions would facilitate risk management practices of members and member organizations.

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 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 either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative prior to 30 days from the date on which it was filed, or such shorter time as the Commission may designate, if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b–4(f)(6)(iii) thereunder.[6]

A proposed rule change filed under Rule 19b–4(f)(6)[7] normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b–4(f)(6)(iii)[8] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative immediately upon filing.

The Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission notes that the Exchange's proposal to adopt exemptions from exercise limits tracks the exemptions from such limits already in place in the rules of ISE. Accordingly, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.[9]

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend 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. If the Commission takes such action, the Commission shall institute proceedings

[3] *See* PHLX Rule 1002(c).

[4] 15 U.S.C. 78f(b).

[5] 15 U.S.C. 78f(b)(5).

[6] In addition, Rule 19b–4(f)(6)(iii) requires the Exchange to give the Commission written notice of the Exchange's intent to file the proposed rule change, along with a brief description and text of 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. The Exchange has satisfied this requirement.

[7] 17 CFR 240.19b–4(f)(6).

[8] 17 CFR 240.19b–4(f)(6)(iii).

[9] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

under Section 19(b)(2)(B) [10] of the Act to determine whether the proposed rule change should be approved or disapproved.

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 email to *rule-comments@sec.gov.* Please include File Number SR–Phlx–2017–32 on the subject line.

Paper Comments

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2017–32. This file number should be included on the subject line if email 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street NE., Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the 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 Number SR–Phlx–2017–32 and should be submitted on or before May 18, 2017.

[10] 15 U.S.C. 78s(b)(2)(B).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[11]

Eduardo A. Aleman,

Assistant Secretary.

[FR Doc. 2017–08464 Filed 4–26–17; 8:45 am]

BILLING CODE 8011–01–P

[11] 17 CFR 200.30–3(a)(12).

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15114]

California Disaster #CA–00271 Declaration of Economic Injury

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Economic Injury Disaster Loan (EIDL) declaration for the State of California, dated 04/19/2017.

Incident: Severe Storms and Flooding.

Incident Period: 02/01/2017 through 02/25/2017.

DATES: Effective Date: 04/19/2017.

EIDL Loan Application Deadline Date: 01/19/2018.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW., Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's EIDL declaration, applications for economic injury disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: El Dorado, Santa Barbara, Tuolumne

Contiguous Counties:

California: Alpine, Amador, Calaveras, Kern, Madera, Mariposa, Merced, Mono, Placer, Sacramento, San Luis Obispo, Stanislaus, Ventura

Nevada: Douglas

The Interest Rates are:

	Percent
Businesses and Small Agricultural Cooperatives Without Credit Available Elsewhere	3.150
Non Profit Organizations Without Credit Available Elsewhere	2.500

The number assigned to this disaster for economic injury is 151140.

The States which received an EIDL Declaration # are California, Nevada.

(Catalog of Federal Domestic Assistance Number 59008)

Dated: April 19, 2017.

Linda E. McMahon,

Administrator.

[FR Doc. 2017–08524 Filed 4–26–17; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15113]

California Disaster #CA–00270 Declaration of Economic Injury

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a notice of an Economic Injury Disaster Loan (EIDL) declaration for the State of California, dated 04/19/2017.

Incident: Severe Storms and Flooding.

Incident Period: 01/03/2017 through 01/12/2017.

DATES: Effective Date: 04/19/2017.

EIDL Loan Application Deadline Date: 01/19/2018.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW., Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the Administrator's EIDL declaration, applications for economic injury disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Los Angeles, San Mateo, Santa Cruz, Tuolumne

Contiguous Counties:

California: Alameda, Alpine, Calaveras, Kern, Madera, Mariposa, Merced, Mono, Monterey, Orange, San Benito, San Bernardino, San Francisco, Santa Clara, Stanislaus, Ventura

The Interest Rates are:

	Percent
Businesses and Small Agricultural Cooperatives Without Credit Available Elsewhere	3.125

	Percent
Non Profit Organizations Without Credit Available Elsewhere	2.500

The number assigned to this disaster for economic injury is 151130.

The State which received an EIDL Declaration # is California.

(Catalog of Federal Domestic Assistance Number 59008)

Dated: April 19, 2017.

Linda E. McMahon,

Administrator.

[FR Doc. 2017–08525 Filed 4–26–17; 8:45 am]

BILLING CODE 8025–01–P

DEPARTMENT OF STATE

[Public Notice: 9976]

Notice of Determinations; Culturally Significant Objects Imported for Exhibition Determinations: ''Edvard Munch: Between the Clock and the Bed'' Exhibition

Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), E.O. 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. 236–3 of August 28, 2000 (and, as appropriate, Delegation of Authority No. 257–1 of December 11, 2015), I hereby determine that certain objects to be included in the exhibition ''Edvard Munch: Between the Clock and the Bed,'' imported from abroad for temporary exhibition within the United States, are of cultural significance. The 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 San Francisco Museum of Modern Art, San Francisco, California, from on or about June 24, 2017, until on or about October 9, 2017, at The Metropolitan Museum of Art, New York, New York, from on or about November 13, 2017, until on or about February 4, 2018, and at possible additional exhibitions or venues yet to be determined, is in the national interest. I have ordered that Public Notice of these Determinations be published in the **Federal Register**.

For further information, including a list of the imported objects, contact the Office of Public Diplomacy and Public Affairs in the Office of the Legal Adviser, U.S. Department of State (telephone: 202–632–6471; email: *section2459@state.gov*). The mailing address is U.S. Department of State, L/PD, SA–5, Suite 5H03, Washington, DC 20522–0505.

Alyson Grunder,

Deputy Assistant Secretary for Policy, Bureau of Educational and Cultural Affairs, Department of State.

[FR Doc. 2017–08453 Filed 4–26–17; 8:45 am]

BILLING CODE 4710–05–P

TENNESSEE VALLEY AUTHORITY

Bull Run Fossil Plant Landfill

AGENCY: Tennessee Valley Authority.

ACTION: Record of Decision.

SUMMARY: This notice is provided in accordance with the Council on Environmental Quality's regulations and Tennessee Valley Authority's (TVA) procedures for implementing the National Environmental Policy Act (NEPA). TVA has decided to adopt the Preferred Alternative identified in the Bull Run Fossil Plant Landfill Final Environmental Impact Statement (EIS). The notice of availability (NOA) of the *Final EIS for the Bull Run Landfill* was published in the **Federal Register** on January 20, 2017. This alternative, Construct and Operate a Landfill for Storage of coal combustion residual (CCR) on TVA Property Adjacent to Bull Run Fossil Plant (Site J), would achieve the purpose and need of the project to provide long-term disposal of dry CCR materials produced at the Bull Run Fossil Plant.

FOR FURTHER INFORMATION CONTACT: Anita E. Masters, Project Environmental Planning, NEPA Project Manager, Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402; telephone (423) 751–8697, or by email *aemasters@tva.gov.* The Final EIS, this Record of Decision and other project documents are available on TVA's Web site *https://www.tva.gov/nepa.*

SUPPLEMENTARY INFORMATION: TVA is a federal agency and instrumentality of the United States created by and existing pursuant to the TVA Act of 1933. Its broad mission is to foster the social and economic welfare of the people of the Tennessee Valley region and to promote the proper use and conservation of the region's natural resources. One component of this mission is the generation, transmission, and sale of reliable and affordable electric energy.

TVA operates the nation's largest public power system, producing approximately four percent of all of the electricity in the nation. TVA provides electricity to most of Tennessee and parts of Virginia, North Carolina, Georgia, Alabama, Mississippi, and Kentucky. Currently, it serves more than nine million people in 80,000 square miles (mi) in this seven-state region. The TVA Act requires the TVA power system to be self-supporting and operated on a nonprofit basis and directs TVA to sell electricity at rates as low as are feasible. TVA receives no taxpayer funding, deriving virtually all of its revenues from sales of electricity. TVA receives no taxpayer funding, deriving virtually all of its revenues from sales of electricity. In addition to operating and investing its revenues in its power system, the TVA Act provides for flood control, navigation and land management for the Tennessee River watershed and assists local power companies and state and local governments with economic development and job creation.

The Bull Run Fossil Plant generates over six billion kilowatt-hours of electric power in a typical year, which is enough electrical energy to meet the needs of approximately 430,000 homes. Historically, TVA has managed storage of CCR materials at the plant in ash impoundments or dry landfills. To modernize the facility and comply with TVA's commitment to manage CCRs on a dry basis, TVA completed the construction of a mechanical dewatering facility in 2014, which removes free water from the CCR—both bottom ash and gypsum. The CCR is then dry-stacked in an on-site landfill located east of the plant. TVA had already been handling and storing fly ash on a dry basis, so there were no changes to that process as a result of the change to dry storage of CCR.

The Bull Run Fossil Plant has state-of-the-art air pollution controls and is one of the coal plants that TVA plans to continue operating in the future. TVA needs 20 years of disposal capacity to meet this operational timeline. Based on current estimates of energy production and consumption rates, on-site storage capacity will be expended within 10 years.

The purpose of this action is to support the need for additional capacity for the long-term management of CCR at Bull Run Fossil Plant. Additional storage capacity would also enable TVA to continue operations at Bull Run Fossil Plant as planned and would be consistent with TVA's voluntary commitment to convert wet CCR management systems to dry systems.

Alternatives Considered

TVA considered three alternatives in the Draft EIS and Final EIS. These alternatives are:

Alternative A—No Action. Under this alternative TVA would not seek additional disposal options for dry placement of CCR generated at Bull Run Fossil Plant. Rather, CCR would continue to be stored in the current disposal areas for as long as storage capacity is available. There is limited capacity for additional CCR disposal on-site. Consequently, at some point in the future, capacity to store CCR on-site will become a limiting factor for continued Bull Run Fossil Plant operations. Any limit on future operations of Bull Run Fossil Plant would not comply with TVA's plan to operate Bull Run Fossil Plant as a base load facility nor conform to TVA's long-range plan to provide power to meet future demands through 2033 as outlined in TVA's Integrated Resource Plan. This alternative would not meet the purpose and need for the proposed action and, therefore, is not considered viable or reasonable. It does, however, represent current conditions and as such provides a benchmark for comparing the environmental impacts of implementation of Alternatives B and C.

Alternative B—Construct and Operate a Landfill for Storage of CCR on TVA Property Adjacent to Bull Run Fossil Plant (Site J). TVA would construct and operate a landfill for disposal of dry CCRs generated at the plant on TVA-owned property located approximately 0.4 mi east of Bull Run Fossil Plant. TVA estimates the landfill would provide approximately 15.5 years of disposal capacity based on projected energy production and consumption rates. Development of Site J would also include construction of a dedicated on-site haul road to convey dry CCR from the plant to the landfill. The 1.37-mile-long haul road would require a bridge to be constructed to convey haul route traffic over New Henderson Road.

Alternative C—Off-Site Transport of CCR to an Existing Permitted Landfill (Chestnut Ridge). Under this alternative, CCR from Bull Run Fossil Plant would be transported to an existing off-site permitted landfill. The analysis of impacts associated with this alternative is based on the closest landfill that can currently accept CCR material, the Chestnut Ridge Landfill, a Class 1 Municipal Solid Waste Facility located approximately twelve miles northeast of Bull Run Fossil Plant. Dry CCR generated at Bull Run Fossil Plant would be transported by tandem dump trucks on existing roadways to the Chestnut Ridge Landfill for disposal. Barge and rail transport were not considered feasible options for this EIS given the lack of existing infrastructure and the proximity of Chestnut Ridge to Bull Run Fossil Plant.

Environmentally Preferable Alternative

The EIS includes baseline information for understanding the potential environmental and socioeconomic impacts associated with the alternatives considered by TVA. TVA considered twenty-one resource areas related to the human and natural environments and the impacts on these resources associated with each alternative.

Alternative A—No Action would result in the lowest level of environmental impacts as the construction-related impacts resulting from Alternative B and impacts related to transportation of CCR under Alternative C would be avoided. However, Alternative A—No Action, does not meet the purpose and need for the project. Implementation of Alternative B would result in minimal unmitigated impacts to the environment, most of which would be related to construction activities that would be temporary in nature and minimized with implementation of best management practices. Long-term minor impacts to wetlands, a stream on the site and losses of potentially suitable summer roost trees for the Indiana bat and northern long-eared bat would be mitigated as described below. The landfill would change the viewshed of some members of the surrounding community. However, as the landfill is located within Bull Run Fossil Plant property in an area that has been modified to support plan operations, there would be a minimal change to the overall scenic value. Alternative C, which utilizes an existing, permitted landfill, would result in few impacts to the natural environment. Impacts associated with this alternative are related to transportation of CCR from Bull Run Fossil Plant to the Chestnut Ridge Landfill.

Public Involvement

On May 21, 2015, TVA published a Notice of Intent (NOI) in the **Federal Register** announcing that it planned to prepare an EIS to address the storage of CCR generated at Bull Run Fossil Plant. The NOI initiated a public scoping period, which concluded on July 6, 2015. In addition to the NOI in the **Federal Register**, TVA published notices regarding this effort in regional and local newspapers; issued a news release to more than 400 media outlets; and posted the news release on the TVA Web site, and posted flyers and signs near the alternative landfill site to solicit public input.

The Draft EIS was released to the public on May 20, 2016, and a notice of availability including a request for comments on the Draft EIS, was published in the **Federal Register** on May 27, 2016. TVA's public and agency involvement for this Draft EIS included a public notice and a 45-day public review of the Draft EIS. The Draft EIS was posted on TVA's Web site and hard copies were available by request. To solicit public input, the availability of the Draft EIS was announced in regional and local newspapers and a news release was issued to the media and posted to TVA's Web site. In addition, TVA mailed postcard notifications to all residents within a one-mile radius of the plant (311 addresses). The postcards announced the availability of the EIS and requested comments. The public comment period closed on July 12, 2016, although TVA accepted comments that were submitted as late as August 12, 2016. TVA's agency involvement included sending letters to local, state and federal agencies and federally recognized tribes to notify them of the availability of the Draft EIS.

TVA received 12 comment submissions, which included letters, emails and submissions through the project Web site. The comment submissions were carefully reviewed and synthesized into comment statements. The most frequently mentioned topics from the public comments were related to the impact from noise and dust from landfill operations as well as the visual impact and change in land use of the site on the surrounding community. TVA provided responses to these comments, made appropriate minor revisions to the Draft EIS and issued the Final EIS.

The NOA for the Final EIS was published in the **Federal Register** on January 20, 2017.

Decision

TVA has decided to implement the preferred alternative identified in the Final EIS, Alternative B—Construct and Operate a Landfill for Storage of CCR on TVA Property Adjacent to Bull Run Fossil Plant (Site J). This alternative was selected over Alternative C—Off-Site Transport of CCR to an Existing Permitted Landfill (Chestnut Ridge) as it would achieve the purpose and need of the project with minimal unmitigated environmental impact, avoid the off-site transport of CCR along public roads, as well as the air emissions, noise, increased traffic and associated long-term safety risks, and disruptions to the

public that would be associated with such off-site transport.

Mitigation Measures

TVA would use appropriate best management practices during all phases of construction and operation of the landfill. Mitigation measures, actions taken to reduce adverse impacts associated with proposed action, include:

- Due to the loss of potentially suitable foraging and roosting habitat for endangered bat species, Section 7 consultation with U.S. Fish and Wildlife will be required. Given the occurrence of potentially suitable roosting habitat for some endangered bat species, all tree clearing would be limited to those times of the year when bats are not expected to be roosting in the area (October 1 through March 31). Impact to bat habitat would be mitigated in accordance with U.S. Fish and Wildlife requirements.
- TVA has coordinated with State of Tennessee Department of Environment and Conservation (TDEC) and the U.S. Army Corps of Engineers, and has proposed mitigation for areas impacted by relocation and/or encroachment of Worthington Branch through payment to an appropriate stream bank and/or restoration on-site.
- Actions involving wetlands and/or stream crossings and stream alterations would be subject to requirements outlined in the federal Clean Water Act Section 404 permit and the TDEC Aquatic Resources Alteration Permit. TVA would adhere to all conditions stipulated in these permits.
- TVA will maintain the plantings along the portion of Site J adjacent to Old Edgemoor Road to continue to provide a vegetative screen.
- TVA will develop a fugitive dust plan which identifies adequate dust control measures for this site. As per CCR rule requirements TVA has developed a fugitive dust hotline where concerns regarding fugitive dust can be recorded. Every year TVA will prepare a report detailing the dust controls used, any citizen complaints received, and a summary of any corrective actions taken.
- TVA will implement a groundwater monitoring plan that adheres to the requirements established in the CCR Rule and those established by TDEC.

Dated: March 29, 2017.

Robert M. Deacy, Sr.,

Senior Vice President, Generation Construction, Projects & Services.

[FR Doc. 2017–08459 Filed 4–26–17; 8:45 am]

BILLING CODE 8120–08–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Summary Notice No. PE–2017–27]

Petition for Exemption; Summary of Petition Received

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of petition for exemption received.

SUMMARY: This notice contains a summary of a petition seeking relief from specified requirements of title 14, Code of Federal Regulations (14 CFR). The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of the FAA's regulatory activities. Neither publication of this notice nor the inclusion or omission of information in the summary is intended to affect the legal status of the petition or its final disposition.

DATES: Comments on this petition must identify the petition docket number involved and must be received on or before May 17, 2017.

ADDRESSES: You may send comments identified by docket number FAA–2017–0117 using any of the following methods:

- *Government-wide rulemaking Web site:* Go to *http://www.regulations.gov* and follow the instructions for sending your comments digitally.
- *Mail:* Send comments to the Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590.
- *Fax:* Fax comments to the Docket Management Facility at 202–493–2251.
- *Hand Delivery:* Bring comments to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Privacy: We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. Using the search function of our docket Web site, anyone can find and read the comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78).

Docket: To read background documents or comments received, go to *http://www.regulations.gov* at any time or to the Docket Management Facility in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Lynette Mitterer, ANM–113, Federal Aviation Administration, 1601 Lind Avenue SW., Renton, WA 98057–3356, email *Lynette.Mitterer@faa.gov,* phone (425) 227–1047.

This notice is published pursuant to 14 CFR 11.85.

Issued in Renton, Washington, on April 21, 2017.

Victor Wicklund,

Manager, Transport Standards Staff.

Petition for Exemption

Docket No.: FAA–2017–0117.
Petitioner: Airbus SAS.
Section of 14 CFR Affected: § 26.21.
Description of Relief Sought: Requesting time-limited changes to binding schedule dates for Airbus Model A310–200.

[FR Doc. 2017–08451 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Submission Deadline for Schedule Information for Chicago O'Hare International Airport, John F. Kennedy International Airport, Los Angeles International Airport, Newark Liberty International Airport, and San Francisco International Airport for the Winter 2017 Scheduling Season

AGENCY: Federal Aviation Administration (FAA), Department of Transportation.

ACTION: Notice of submission deadline.

SUMMARY: Under this notice, the FAA announces the submission deadline of May 11, 2017, for winter 2017 flight schedules at Chicago O'Hare International Airport (ORD), John F. Kennedy International Airport (JFK), Los Angeles International Airport (LAX), Newark Liberty International Airport (EWR), and San Francisco International Airport (SFO), in accordance with the International Air Transport Association (IATA) Worldwide Slot Guidelines (WSG). The deadline coincides with the schedule submission deadline for the IATA Slot Conference for the winter 2017 scheduling season.

DATES: Schedules must be submitted no later than May 11, 2017.

ADDRESSES: Schedules may be submitted by email to: *7-AWA-slotadmin@faa.gov;* facsimile: 202–267–7277; or by mail to the Slot Administration Office, AGC–200, Office of the Chief Counsel, 800 Independence Avenue SW., Washington, DC 20591.

FOR FURTHER INFORMATION CONTACT: Susan Pfingstler, System Operations Services, Air Traffic Organization, Federal Aviation Administration, 600 Independence Avenue SW., Washington, DC 20591; telephone number: 202–267–6462; email: *susan.pfingstler@faa.gov*.

SUPPLEMENTARY INFORMATION: The FAA has designated EWR, LAX, ORD, and SFO as IATA Level 2 airports and JFK as an IATA Level 3 airport. The FAA currently limits scheduled operations at JFK by Order.[1]

The FAA is primarily concerned about scheduled and other regularly conducted commercial operations during peak hours, but carriers may submit schedule plans for the entire day. At ORD, the peak hours are 0700 to 2100 Central Time (1300 to 0300 UTC), at LAX and SFO from 0600 to 2300 Pacific Time (1400 to 0700 UTC), and at EWR and JFK from 0600 to 2300 Eastern Time (1100 to 0400 UTC). Carriers should submit schedule information in sufficient detail, including, at minimum, the operating carrier, flight number, scheduled time of operation, frequency, and effective dates. IATA standard schedule information format and data elements (Standard Schedules Information Manual or SSIM, Chapter 6) may be used. The WSG provides additional information on schedule submissions and updates at Level 2 and Level 3 airports.

The U.S. winter scheduling season for these airports is from October 29, 2017, through March 24, 2018, in recognition of the IATA northern winter period. The FAA understands there may be differences in schedule times due to U.S. daylight saving time dates and will accommodate these differences to the extent possible.

JFK will have construction in 2018 on Runway 13L/31R for rehabilitation of pavement and other airfield improvements. The Port Authority of New York and New Jersey (PANYNJ), the airport operator, is currently developing the construction phasing plans in consultation with FAA, airlines, and other stakeholders. The FAA and the PANYNJ will work together to minimize operational disruptions to the extent possible, similar to prior runway construction projects. As construction plans are developed, the FAA will review alternative runway configurations and operating procedures and model potential capacity and delay impacts. We expect the PANYNJ will conduct regular meetings with the FAA, airlines, and other stakeholders. Those meetings and other information provided by the PANYNJ will likely be the best source of project updates and potential operational impacts.

LAX will continue rehabilitation on Runway 7L/25R and taxiways during parts of the winter 2017 season. Los Angeles World Airports (LAWA), the airport operator, plans construction that will shorten the runway length through December. The runway will be limited to departing flights. Other airfield construction is not currently estimated to have significant operational impacts. LAWA conducts monthly meetings on construction updates with FAA local air traffic control, airline representatives, and other interested stakeholders. The LAWA meetings may be the best source of project updates and potential operational impacts.

The FAA will use hourly runway capacity throughput for the Level 2 airports in its schedule reviews, considering any differences associated with runway construction or other operational factors. The FAA regularly reviews operational performance metrics and trends to determine if demand, including arrival and departure distribution, during certain time periods may create operational issues and assess whether schedule adjustments or changes to scheduling limits are warranted during those periods.

There are a few cases where the FAA anticipates potential issues for winter 2017. Carriers are encouraged to take these potential issues into consideration before submitting schedules for winter 2017 and should be prepared to adjust schedules to meet available capacity in order to minimize potential congestion and delay. At EWR, the 0700 to 0859 and 1400–2059 Eastern Time (1200 to 1359 and 1900 to 0159 UTC) hours are expected to be the highest demand periods and not all requests for new flights are likely to be accommodated during those times. At LAX and SFO, the 0700 to 1359 Pacific Time (1500 to 2159 UTC) hours are expected to be the highest demand hours. At ORD, the FAA will continue to review cumulative demand and peaking of scheduled operations to identify potential congested periods. As in previous seasons, at JFK, there is limited availability for new operations outside the mid-morning and late evening periods. Anticipated late winter runway construction could also increase delays above levels normally experienced in that period.

Each Level 2 airport has a separate process adopted by the airport operator for securing terminal/gate availability for certain types of flights. These are primarily for international passenger flights or for flights operating at particular terminals or gates. The processes with the individual airports will continue separately from, and in addition to, the FAA review of schedules based on runway capacity. IATA maintains the schedule facilitator contact information for carriers planning operations at EWR, LAX, ORD, and SFO. There are multiple terminals at JFK and airlines are similarly responsible for securing terminal approval if needed. The FAA may consider the need to harmonize terminal and runway availability. However, this may not always be possible within the various airport and airline constraints.

Issued in Washington, DC, on April 21, 2017.

Michael C. Artist,

Acting Vice President, System Operations Services.

[FR Doc. 2017–08532 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–13–P

[1] Operating Limitations at John F. Kennedy International Airport, 73 FR 3510 (Jan. 18, 2008) as most recently amended 81 FR 40167 (June 21, 2016).

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[FMCSA Docket No. FMCSA–2017–0029]

Qualification of Drivers; Exemption Applications; Diabetes Mellitus

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition.

SUMMARY: FMCSA announces its decision to exempt 44 individuals from its rule prohibiting persons with insulin-treated diabetes mellitus (ITDM) from operating commercial motor vehicles (CMVs) in interstate commerce. The exemptions enable these individuals to operate CMVs in interstate commerce.

DATES: The exemptions were effective on April 7, 2017. The exemptions expire on April 7, 2019.

FOR FURTHER INFORMATION CONTACT: Ms. Christine A. Hydock, Chief, Medical Programs Division, (202) 366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200

New Jersey Avenue SE., Room W64–113, Washington, DC 20590–0001. Office hours are from 8:30 a.m. to 5 p.m. e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

I. Electronic Access

You may see all the comments online through the Federal Document Management System (FDMS) at: *http://www.regulations.gov.*

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* and/or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

II. Background

On March 7, 2017, FMCSA published a notice of receipt of Federal diabetes exemption applications from 44 individuals and requested comments from the public (82 FR 12891). The public comment period closed on April 6, 2017, and one comment was received.

FMCSA has evaluated the eligibility of the 44 applicants and determined that granting the exemptions to these individuals would achieve a level of safety equivalent to or greater than the level that would be achieved by complying with the current regulation 49 CFR 391.41(b)(3).

Diabetes Mellitus and Driving Experience of the Applicants

The Agency established the current requirement for diabetes in 1970 because several risk studies indicated that drivers with diabetes had a higher rate of crash involvement than the general population. The diabetes rule provides that ''A person is physically qualified to drive a commercial motor vehicle if that person has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control'' (49 CFR 391.41(b)(3)).

FMCSA established its diabetes exemption program, based on the Agency's July 2000 study entitled ''A Report to Congress on the Feasibility of a Program to Qualify Individuals with Insulin-Treated Diabetes Mellitus to Operate in Interstate Commerce as Directed by the Transportation Act for the 21st Century.'' The report concluded that a safe and practicable protocol to allow some drivers with ITDM to operate CMVs is feasible. The September 3, 2003 (68 FR 52441), **Federal Register** notice in conjunction with the November 8, 2005 (70 FR 67777), **Federal Register** notice provides the current protocol for allowing such drivers to operate CMVs in interstate commerce.

These 44 applicants have had ITDM over a range of 1 to 25 years. These applicants report no severe hypoglycemic reactions resulting in loss of consciousness or seizure, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning symptoms, in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the past 5 years. In each case, an endocrinologist verified that the driver has demonstrated a willingness to properly monitor and manage his/her diabetes mellitus, received education related to diabetes management, and is on a stable insulin regimen. These drivers report no other disqualifying conditions, including diabetes-related complications. Each meets the vision requirement at 49 CFR 391.41(b)(10).

The qualifications and medical condition of each applicant were stated and discussed in detail in the March 7, 2017, **Federal Register** notice and they will not be repeated in this notice.

III. Discussion of Comments

FMCSA received one comment in this proceeding. Wesley Collier stated that he believes he ''would refrain from passing a general rule'' allowing drivers with ITDM to operate CMVs in interstate commerce, but allow exceptions for drivers who fit certain medical criteria. FMCSA has reviewed the medical histories of all drivers in this document and has determined that granting the exemptions will create a level of safety equal to or greater than what would be achieved without granting the exemptions.

IV. Basis for Exemption Determination

Under 49 U.S.C. 31136(e) and 31315, FMCSA may grant an exemption from the diabetes requirement in 49 CFR 391.41(b)(3) if the exemption is likely to achieve an equivalent or greater level of safety than would be achieved without the exemption. The exemption allows the applicants to operate CMVs in interstate commerce.

To evaluate the effect of these exemptions on safety, FMCSA considered medical reports about the applicants' ITDM and vision, and reviewed the treating endocrinologists' medical opinion related to the ability of the driver to safely operate a CMV while using insulin.

Consequently, FMCSA finds that in each case exempting these applicants from the diabetes requirement in 49 CFR 391.41(b)(3) is likely to achieve a level of safety equal to that existing without the exemption.

V. Conditions and Requirements

The terms and conditions of the exemption will be provided to the applicants in the exemption document and they include the following: (1) That each individual submit a quarterly monitoring checklist completed by the treating endocrinologist as well as an annual checklist with a comprehensive medical evaluation; (2) that each individual reports within 2 business days of occurrence, all episodes of severe hypoglycemia, significant complications, or inability to manage diabetes; also, any involvement in an accident or any other adverse event in a CMV or personal vehicle, whether or not it is related to an episode of hypoglycemia; (3) that each individual provide a copy of the ophthalmologist's or optometrist's report to the medical examiner at the time of the annual medical examination; and (4) that each individual provide a copy of the annual medical certification to the employer for retention in the driver's qualification file, or keep a copy in his/her driver's qualification file if he/she is self-employed. The driver must also have a copy of the certification when driving, for presentation to a duly authorized Federal, State, or local enforcement official.

VI. Conclusion

Based upon its evaluation of the 44 exemption applications, FMCSA exempts the following drivers from the diabetes requirement in 49 CFR 391.41(b)(3):

M. Rafael Allen (CT)
Roger L. Anderson (IL)
Joseph S. Bernier (MA)
Davarus L. Bouknight (SC)
Everett L. Brashears (MA)
Thomas G. Brown, II (IN)
Sequoyah S. Browning (AR)
Alfred B. Cardwell (ND)
Gregg J. Chase (NJ)
Michael R. Chrisman (NE)
Joseph A. Czanstkowski (MN)
Daniel G. Durbin (IN)
Charles E. Fennington (DE)
Craig D. Furlough (NC)

Jeffrey D. Griffin (NC)
Daryll A. Grinkey (IL)
Daniel J. Irving (MD)
Charles B. Jesness (CO)
Derrick Johnson (IL)
Robert F. King (NY)
Henry D. Lyons (CT)
Owen L. MacDonald (KS)
Edwin Martinez, Jr. (DE)
Joseph Murray (KS)
Bryan J. Orcutt (ID)
Jesus H. Oseguera (ID)
Eugenio J. Pereira (NJ)
Brian R. Repp (WI)
Michael W. Robinson (MD)
Reynaldo Roman (NY)
David A. Rosen (PA)
Joseph C. Schulte (OH)
Byron L. Short (CO)
George W. Sparrow (RI)
Gabriel S. Stevens (CT)
Stanford A. Tilghman (PA)
Joshua F. Tolman (UT)
Thomas W. Truitt (WY)
Joseph G. Volz (WI)
David B. Watson (FL)
Curtis D. Weinman (WA)
Charlie A. Williams (NC)
Timothy J. Williamson (GA)
Mark E. Wisecarver (PA)

In accordance with 49 U.S.C. 31136(e) and 31315 each exemption is valid for two years unless revoked earlier by FMCSA. The exemption will be revoked if the following occurs: (1) The person fails to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136(e) and 31315. If the exemption is still effective at the end of the 2-year period, the person may apply to FMCSA for a renewal under procedures in effect at that time.

Issued on: April 19, 2017.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2017–08497 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2005–22177; FMCSA–2005–22905; FMCSA–2006–26600; FMCSA–2008–0009; FMCSA–2008–0399; FMCSA–2009–0055; FMCSA–2011–0011; FMCSA–2011–0025; FMCSA–2013–0011; FMCSA–2013–0013; FMCSA–2014–0314]

Qualification of Drivers; Exemption Applications; Diabetes

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of renewal of exemptions; request for comments.

SUMMARY: FMCSA announces its decision to renew the exemptions of 135 individuals from its rule prohibiting persons with insulin-treated diabetes mellitus (ITDM) from operating commercial motor vehicles (CMVs) in interstate commerce. FMCSA has statutory authority to exempt individuals from this rule if the exemptions granted will not compromise safety. The Agency has concluded that granting these exemption renewals will provide a level of safety that is equivalent to or greater than the level of safety maintained without the exemptions for these CMV drivers.

DATES: Each group of renewed exemptions are effective from the dates stated in the discussions below. Comments must be received on or before May 30, 2017.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) numbers: Docket No. FMCSA–2005–22177; FMCSA–2005–22905; FMCSA–2006–26600; FMCSA–2008–0009; FMCSA–2008–0399; FMCSA–2009–0055; FMCSA–2011–0011; FMCSA–2011–0025; FMCSA–2013–0011; FMCSA–2013–0013; FMCSA–2014–0314 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the on-line instructions for submitting comments.
- *Mail:* Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal Holidays.
- *Fax:* 1–202–493–2251.

Instructions: Each submission must include the Agency name and the docket number for this notice. Note that DOT posts all comments received without change to *http://www.regulations.gov,* including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* at any time or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays. The Federal Docket Management System (FDMS) is available 24 hours each day, 365 days each year. If you want acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments on-line.

Privacy Act: Anyone may search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or of the person signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's Privacy Act Statement for the Federal Docket Management System (FDMS) published in the **Federal Register** on January 17, 2008 (73 FR 3316).

FOR FURTHER INFORMATION CONTACT: Ms. Christine A. Hydock, Chief, Medical Programs Division, 202–366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue, SE., Room W64–113, Washington, DC 20590–0001. Office hours are from 8 a.m. to 5:30 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

I. Background

Under 49 U.S.C. 31136(e) and 31315, FMCSA may renew an exemption from the Federal Motor Carrier Safety Regulations 2-year period if it finds ''such exemption would likely achieve a level of safety that is equivalent to or greater than the level that would be achieved absent such exemption.'' The statute also allows the Agency to renew exemptions at the end of the 2-year period. The 135 individuals listed in this notice have recently become eligible for a renewed exemption from the diabetes prohibition in 49 CFR 391.41(b)(3), which applies to drivers of CMVs in interstate commerce. The drivers remain in good standing with the Agency, have maintained their required medical monitoring and have not exhibited any medical issues that would compromise their ability to safely operate a CMV during the previous 2-year exemption period.

II. Exemption Decision

This notice addresses 135 individuals who have requested renewal of their exemptions in accordance with FMCSA procedures. These 135 drivers remain in good standing with the Agency, have maintained their required medical monitoring and have not exhibited any medical issues that would compromise

their ability to safely operate a CMV during the previous 2-year exemption period. Therefore, FMCSA has decided to extend each exemption for a renewable two-year period. Each individual is identified according to the renewal date.

The exemptions are renewed subject to the following conditions: (1) That each individual submit a quarterly monitoring checklist completed by the treating endocrinologist as well as an annual checklist with a comprehensive medical evaluation; (2) that each individual reports within 2 business days of occurrence, all episodes of severe hypoglycemia, significant complications, or inability to manage diabetes; also, any involvement in an accident or any other adverse event in a CMV or personal vehicle, whether or not it is related to an episode of hypoglycemia; (3) that each individual submit an annual ophthalmologist's or optometrist's report; and (4) that each individual provide a copy of the annual medical certification to the employer for retention in the driver's qualification file, or keep a copy in his/her driver's qualification file if he/she is self-employed. The driver must also have a copy of the certification when driving, for presentation to a duly authorized Federal, State, or local enforcement official.

III. Basis for Renewing Exemptions

Under 49 U.S.C. 31315(b)(1), an exemption may be granted for no longer than two years from its approval date and may be renewed upon application for additional two year periods. The following groups of drivers received renewed exemptions in the month of April and are discussed below.

As of April 2, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 9 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (78 FR 7852; 79 FR 19798):

Isaias Gomez (IN)
Brandon E. Hamlett (NV)
Douglas F. Keller (MI)
Mark R. Loesel (WI)
Jason E. McAnnally (AL)
Samuel L. Sergio (MA)
Paul M. Shierk (OR)
David W. West (MO)
Eugene R. Zollner II (OH)

The drivers were included in Docket No. FMCSA–2013–0011. Their exemptions are effective as of April 2, 2017, and will expire on April 2, 2019.

As of April 5, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, James R. Moretz, Jr. (PA) has satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (70 FR 60875; 71 FR 17159).

This driver was included in docket No. FMCSA–2005–22177. The exemption is effective as of April 5, 2017, and will expire on April 5, 2019.

As of April 6, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 11 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (74 FR 7093; 74 FR 15577):

Daniel J. Conner (PA)
Luis G. Garcia (FL)
Joey M. Godinho (CA)
Gerardo Gonzalez (WI)
Edwin L. Haynie (TX)
Darryl D. Hewitt (CA)
Mark D. Hoag (WA)
Patrick H. Junkins (SC)
Jeffrey D. Moul (SD)
Frank B. Rivett (NY)
Michael L. Wise (IN)

The drivers were included in docket No. FMCSA–2008–0399. Their exemptions are effective as of April 6, 2017, and will expire on April 6, 2019.

As of April 7, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 3 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (70 FR 75236; 71 FR 17943):

Roy G. Hill (KY)
Anthony D. Izzi (RI)
Kenneth L. Pogue (MO)

The drivers were included in docket No. FMCSA–2005–22905. Their exemptions are effective as of April 7, 2017, and will expire on April 7, 2019.

As of April 18, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 27 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (80 FR 14232; 80 FR 26986):

Scott A. Anderson (MN)
Peter A. Breister (WI)
Donald J. Carino (IL)
Marc B. Curtis (NV)
Aaron M. Dixon (SD)
Bradley O. Gibson (TX)
Theodore F. Griffith (MA)
Lawrence E. Handel (OR)
Danny P. Hersh (NE)
Bryan W. Hughes-Gariepy (NY)
James L. Johnson (GA)
Thomas Landis (IL)
Grant L. Lupold (PA)
Nathan R. McGathey (IN)
Mark A. Mesnard (OH)
Gene K. Milburn (ID)
Andrew M. Oliver (MI)
Richard L. Peak (KS)
Anthony P. Reith (PA)
Steven Smith (FL)
Robert L. Snyder (MA)
John H. Spierings (WI)
Robert E. Stokes (WA)
Corey R. Sturm (IN)
Christopher W. Williams (ID)
Robert L. Witt (VT)
Paul G. Wright (CO)

The drivers were included in docket No. FMCSA–2014–0314. Their exemptions are effective as of April 18, 2017, and will expire on April 18, 2019.

As of April 22, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 10 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (74 FR 9467; 74 FR 18436):

Scott D. Baroch (MT)
Michael G. Chisum (NM)
Timothy N. Davenport (TN)
Henry S. Glover (TX)
James R. Halliday (NY)
Nathan M. Hennix (ND)
Wilbert E. Isadore (TX)
Eddie J. Nosser (MO)
Joseph C. Perrin III (MN)
Ronald A. Stachura (WI)

The drivers were included in docket No. FMCSA–2009–0055. Their exemptions are effective as of April 22, 2017, and will expire on April 22, 2019.

As of April 24, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 19 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (78 FR 14406; 78 FR 24303):

Christopher R. Anderson (MN)
Brent T. Applebury (MO)
Jospeh A. Auchterlonie (NH)
Brett D. Bertagnolli (IN)
Brian T. Bofenkamp (WA)
Scott A. Carlson (PA)
John Fityere (NJ)
Ronald A. Heaps (OH)
Martin A. Houts (IA)
Michael T. Kraft (MN)
Kris W. Lindsay (KS)
Edward M. Luczynski (NJ)
John E. Ruth (IL)
Greggory A. Smith (MO)
James M. Torkildson (WI)
Terry R. Washa (NE)
Alfred J. Williams (VA)
Scott B. Wood (ND)
James L. Zore (IN)

The drivers were included in docket No. FMCSA–2013–0013. Their exemptions are effective as of April 24, 2017, and will expire on April 24, 2019.

As of April 25, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 36 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (73 FR 11982; 73 FR 22456; 76 FR 9854; 76 FR 9862; 76 FR 22940; 76 FR 22941):

Ryan N. Adams (CA)
Kevin J. Agler (IN)
Michael B. Bessinger (UT)
Douglas D. Brown (WI)
Warren S. Brown (GA)
Roger R. Cabana (ME)
Steven W. Ceckiewicz (WI)
Joseph F. Colbert (PA)
Daniel E. Coufal (NE)
Gregory M. Cox (NY)
Dennis J. Dallmann (MN)
Bruce R. Davis (NJ)
Michael B. Elzey (WY)
Earl S. Fibish (CA)
Todd W. Gillespie (NY)
Omar S. Griffin, Jr. (MN)
Richard E. Grunden (ND)
Mark Hall (NJ)
Michael B. Heuett (ID)
Dennis P. Hohnerlein (GA)
Todd A. Kozemchak (PA)
Chad M. Kunkel (MN)
Paul F. Lanich (PA)
Kenneth L. Lefeld (OH)
Daryl G. Lewis (TX)
Jeffrey S. Lomber (MI)
Joseph G. McDonald (MD)
Alan J. Mitchell (DE)
Raymond P. Mora, Sr. (AZ)
James L. Mynars (MN)
John R. Pile (IN)
Dale A. Roberts (IA)
Richard S. Synakowski (NY)
Bruce K. Thomas (NY)
Kory M. Tobias (IL)
Kevin J. Van Horn (MI)

The drivers were included in one of the following docket Nos: FMCSA–2008–0009; FMCSA–2011–0011; FMCSA–2011–0025. Their exemptions are effective as of April 25, 2017, and will expire on April 25, 2019.

As of April 28, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, Spencer J. Olson (ID) has satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (80 FR 14232; 80 FR 26986).

This driver was included in docket No. FMCSA–2014–0314. The exemption is effective as of April 28, 2017, and will expire on April 28, 2019.

As of April 30, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 18 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (72 FR 9399; 72 FR 21316):

Daniel W. Bezdek (OH)
Jason L. Freeseman (IA)
Rusty W. Frost (NM)
Andrew J. Hayek (WI)
Gary L. Koehn (NE)
Edward T. Megee (CA)
Steven T. Moody (AL)
Timothy W. Nelson (MN)
Richard W. Newman (NY)
Jamison P. Noel (IA)
Rex S. Norquist (KS)
Steven B. Novak (CA)
Russell D. Rockefeller (NY)
Scott W. Sheerer (OH)
Richard L. Strange (IA)
Samuel G. Thiel (ND)
Robert J. Varetoni (NJ)
Michael R. Vaupel (KS)

The drivers were included in docket No. FMCSA–2006–26600. Their exemptions are effective as of April 30, 2017, and will expire on April 30, 2019.

Each of the 135 drivers in the aforementioned groups qualifies for a renewal of the exemption. They have maintained their required medical monitoring and have not exhibited any medical issues that would compromise their ability to safely operate a CMV during the previous 2-year exemption period.

These factors provide an adequate basis for predicting each driver's ability to continue to drive safely in interstate commerce. Therefore, FMCSA concludes that extending the exemption for each of the 135 drivers for a period of two years is likely to achieve a level of safety equal to that existing without the exemption. The drivers were included in docket numbers FMCSA–2005–22177; FMCSA–2005–22905; FMCSA–2006–26600; FMCSA–2008–0009; FMCSA–2008–0399; FMCSA–2009–0055; FMCSA–2011–0011; FMCSA–2011–0025; FMCSA–2013–0011; FMCSA–2013–0013; FMCSA–2014–0314.

IV. Request for Comments

FMCSA will review comments received at any time concerning a particular driver's safety record and determine if the continuation of the exemption is consistent with the requirements at 49 U.S.C. 31136(e) and 31315. However, FMCSA requests that interested parties with specific data concerning the safety records of these drivers submit comments by May 30, 2017.

FMCSA believes that the requirements for a renewal of an exemption under 49 U.S.C. 31136(e) and 31315 can be satisfied by initially granting the renewal and then requesting and evaluating, if needed, subsequent comments submitted by interested parties. As indicated above, the Agency previously published notices of final disposition announcing its decision to exempt these 135 individuals from rule prohibiting persons with ITDM from operating CMVs in interstate commerce in 49 CFR 391.41(b)(3). The final decision to grant an exemption to each of these individuals was made on the merits of each case and made only after careful consideration of the comments received to its notices of applications. The notices of applications stated in detail the medical condition of each applicant for an exemption from rule prohibiting persons with ITDM from operating CMVs in interstate commerce. That information is available by consulting the above cited **Federal Register** publications.

Interested parties or organizations possessing information that would otherwise show that any, or all, of these drivers are not currently achieving the statutory level of safety should immediately notify FMCSA. The Agency will evaluate any adverse evidence submitted and, if safety is being compromised or if continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136(e) and 31315, FMCSA will take immediate steps to revoke the exemption of a driver.

V. Submitting Comments

You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. FMCSA recommends that you include your name and a mailing address, an email address, or a phone number in the body of your document so that FMCSA can contact you if there are questions regarding your submission.

To submit your comment online, go to *http://www.regulations.gov* and in the search box insert the docket numbers FMCSA–2005–22177; FMCSA–2005–22905; FMCSA–2006–26600; FMCSA–2008–0009; FMCSA–2008–0399; FMCSA–2009–0055; FMCSA–2011–0011; FMCSA–2011–0025; FMCSA–2013–0011; FMCSA–2013–0013; FMCSA–2014–0314 and click the search button. When the new screen appears, click on the blue ''Comment Now!'' button on the right hand side of the page. On the new page, enter information required including the specific section of this document to which each comment applies, and

provide a reason for each suggestion or recommendation. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments 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. FMCSA may issue a final determination at any time after the close of the comment period.

VI. Viewing Comments and Documents

To view comments, as well as any documents mentioned in this preamble, go to *http://www.regulations.gov* and in the search box insert the docket number FMCSA–2005–22177; FMCSA–2005–22905; FMCSA–2006–26600; FMCSA–2008–0009; FMCSA–2008–0399; FMCSA–2009–0055; FMCSA–2011–0011; FMCSA–2011–0025; FMCSA–2013–0011; FMCSA–2013–0013; FMCSA–2014–0314 and click ''Search.'' Next, click ''Open Docket Folder'' and you will find all documents and comments related to this notice.

Dated: April 19, 2017.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2017–08498 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2017–0031]

Qualification of Drivers; Exemption Applications; Diabetes Mellitus

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), Department of Transportation.

ACTION: Notice of applications for exemptions; request for comments.

SUMMARY: FMCSA announces receipt of applications from 50 individuals for exemption from the prohibition against persons with insulin-treated diabetes mellitus (ITDM) operating commercial motor vehicles (CMVs) in interstate commerce. If granted, the exemptions would enable these individuals with ITDM to operate CMVs in interstate commerce.

DATES: Comments must be received on or before May 30, 2017.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) Docket No. FMCSA–2017–0031 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the online instructions for submitting comments.
- *Mail:* Docket Management Facility; U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.
- *Hand Delivery:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays.
- *Fax:* 1–202–493–2251.

Instructions: Each submission must include the Agency name and the docket numbers for this notice. Note that all comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided. Please see the Privacy Act heading below for further information.

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* at any time or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays. The Federal Docket Management System (FDMS) is available 24 hours each day, 365 days each year. If you want acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments online.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

FOR FURTHER INFORMATION CONTACT: Ms. Christine A. Hydock, Chief, Medical Programs Division, (202) 366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue SE., Room W64–113, Washington, DC 20590–0001. Office hours are 8:30 a.m. to 5 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

I. Background

Under 49 U.S.C. 31136(e) and 31315, FMCSA may grant an exemption from the Federal Motor Carrier Safety Regulations for a 2-year period if it finds ''such exemption would likely achieve a level of safety that is equivalent to or greater than the level that would be achieved absent such exemption.'' The statute also allows the Agency to renew exemptions at the end of the 2-year period. The 50 individuals listed in this notice have recently requested such an exemption from the diabetes prohibition in 49 CFR 391.41(b) (3), which applies to drivers of CMVs in interstate commerce. Accordingly, the Agency will evaluate the qualifications of each applicant to determine whether granting the exemption will achieve the required level of safety mandated by statute.

II. Qualifications of Applicants

Gerald G. Blacklock

Mr. Blacklock, 65, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Blacklock understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Blacklock meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Pennsylvania.

Ronald J. Boe

Mr. Boe, 67, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Boe understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Boe meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic

retinopathy. He holds a Class A CDL from Minnesota.

Robert E. Branigan, Jr.

Mr. Branigan, 62, has had ITDM since 2012. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Branigan understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Branigan meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Pennsylvania.

Wayne P. Cashion

Mr. Cashion, 61, has had ITDM since 1995. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Cashion understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Cashion meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds an operator's license from Tennessee.

Randall J. Claeys

Mr. Claeys, 57, has had ITDM since 2006. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Claeys understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Claeys meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Oregon.

Ronald G. Dalle

Mr. Dalle, 54, has had ITDM since 2013. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Dalle understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Dalle meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from New York.

Vincenzo Dellisola

Mr. Dellisola, 79, has had ITDM since 2015. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Dellisola understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Dellisola meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class C CDL from New York.

Gary L.A. Driggers

Mr. Driggers, 35, has had ITDM since 1994. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Driggers understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Driggers meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable proliferative diabetic retinopathy. He holds an operator's license from Georgia.

Daniel L. Fernberg

Mr. Fernberg, 24, has had ITDM since 2004. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Fernberg understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Fernberg meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Wisconsin.

Steven A. Grover

Mr. Grover, 59, has had ITDM since 2015. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Grover understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Grover meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds an operator's license from Colorado.

Kenneth L. Hawthorne

Mr. Hawthorne, 59, has had ITDM since 2014. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies

that Mr. Hawthorne understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Hawthorne meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Mississippi.

Matthew A. Huebner

Mr. Huebner, 40, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Huebner understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Huebner meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Illinois.

James C. Hylton

Mr. Hylton, 41, has had ITDM since 2008. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Hylton understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Hylton meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from Virginia.

Michael A. Jacobson

Mr. Jacobson, 56, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Jacobson understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Jacobson meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Iowa.

David C. Jossi

Mr. Jossi, 66, has had ITDM since 2009. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Jossi understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Jossi meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Idaho.

Randy J. Kean

Mr. Kean, 55, has had ITDM since 2016. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Kean understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Kean meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Kentucky.

Edward T. Klauck

Mr. Klauck, 61, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Klauck understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Klauck meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from Missouri.

Carl R. Knapp

Mr. Knapp, 60, has had ITDM since 2015. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Knapp understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Knapp meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Washington.

Robert E. Knox

Mr. Knox, 44, has had ITDM since 2011. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Knox understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Knox meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Oregon.

Oris Lormeus

Mr. Lormeus, 56, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the

assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Lormeus understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Lormeus meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from New York.

James V. Maiorana

Mr. Maiorana, 51, has had ITDM since 1989. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Maiorana understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Maiorana meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from New York.

Jerry S. Malloy

Mr. Malloy, 55, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Malloy understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Malloy meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Oklahoma.

James E. Mann, Jr.

Mr. Mann, 58, has had ITDM since 2008. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Mann understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Mann meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class C CDL from North Carolina.

Tremaine E. Mathews

Mr. Mathews, 21, has had ITDM since 2010. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Mathews understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Mathews meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds an operator's license from Texas.

Archie D. McCracken

Mr. McCracken, 51, has had ITDM since 2010. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. McCracken understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. McCracken meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic retinopathy. He holds an operator's license from North Carolina.

William M. Nafus

Mr. Nafus, 58, has had ITDM since 2012. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Nafus understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Nafus meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Pennsylvania.

David S.E. Patton

Mr. Patton, 24, has had ITDM since 2011. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Patton understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Patton meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds an operator's license from Arkansas.

Andrew J. Peard

Mr. Peard, 31, has had ITDM since 2002. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Peard understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Peard meets the

requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Nebraska.

Ronald C. Pennyman

Mr. Pennyman, 49, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Pennyman understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Pennyman meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Georgia.

Matthew B. Phillips

Mr. Phillips, 38, has had ITDM since 1992. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Phillips understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Phillips meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Indiana.

Larry P. Pruitt

Mr. Pruitt, 57, has had ITDM since 2013. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Pruitt understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Pruitt meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from North Carolina.

Jose L. Ramos

Mr. Ramos, 51, has had ITDM since 2007. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Ramos understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Ramos meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from New Mexico.

Danny L. Russell

Mr. Russell, 51, has had ITDM since 2009. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Russell understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Russell meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from New Hampshire.

Ronald M. Salas

Mr. Salas, 68, has had ITDM since 1999. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Salas understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Salas meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic retinopathy. He holds an operator's license from California.

Roger W. Senff

Mr. Senff, 54, has had ITDM since 2010. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Senff understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Senff meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Wyoming.

David M. Seswick

Mr. Seswick, 64, has had ITDM since 2011. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Seswick understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Seswick meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Ohio.

Charles W. Smith

Mr. Smith, 59, has had ITDM since 2014. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the

past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Smith understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Smith meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Virginia.

Jeffery A. Stone

Mr. Stone, 48, has had ITDM since 2016. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Stone understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Stone meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Indiana.

William C. Suozzo

Mr. Suozzo, 62, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Suozzo understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Suozzo meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class B CDL from Pennsylvania.

Sean M. Sweeney

Mr. Sweeney, 36, has had ITDM since 2006. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Sweeney understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Sweeney meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he has stable nonproliferative diabetic retinopathy. He holds an operator's license from New Jersey.

Thomas W. Szaloy

Mr. Szaloy, 57, has had ITDM since 2015. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Szaloy understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Szaloy meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from New Mexico.

John A. Tagtgren

Mr. Tagtgren, 46, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Tagtgren understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Tagtgren meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Minnesota.

Michael E. Thompson

Mr. Thompson, 49, has had ITDM since 2015. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Thompson understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Thompson meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Washington.

John A. Wargo

Mr. Wargo, 32, has had ITDM since 1992. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Wargo understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Wargo meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from West Virginia.

Michael E. Weideman

Mr. Weideman, 65, has had ITDM since 2010. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Weideman understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Weideman meets the

requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class C CDL from South Dakota.

Monty A. Weigum

Mr. Weigum, 36, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Weigum understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Weigum meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds an operator's license from North Dakota.

Zachery B.J. Weihert

Mr. Weihert, 24, has had ITDM since 2006. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Weihert understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Weihert meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds an operator's license from Wisconsin.

James M. Wenzel

Mr. Wenzel, 60, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Wenzel understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Wenzel meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2017 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Minnesota.

Steven G. Wilcox

Mr. Wilcox, 61, has had ITDM since 2016. His endocrinologist examined him in 2017 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Wilcox understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Wilcox meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from California.

Nathaniel D. Winston

Mr. Winston, 60, has had ITDM since 2014. His endocrinologist examined him in 2016 and certified that he has had no severe hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 12 months and no recurrent (2 or more) severe hypoglycemic episodes in the last 5 years. His endocrinologist certifies that Mr. Winston understands diabetes management and monitoring, has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Winston meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2016 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Virginia.

III. Request for Comments

In accordance with 49 U.S.C. 31136(e) and 31315, FMCSA requests public comment from all interested persons on the exemption petitions described in this notice. We will consider all comments received before the close of business on the closing date indicated in the date section of the notice.

FMCSA notes that section 4129 of the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users requires the Secretary to revise its diabetes exemption program established on September 3, 2003 (68 FR 52441).[1] The revision must provide for individual assessment of drivers with diabetes mellitus, and be consistent with the criteria described in section 4018 of the Transportation Equity Act for the 21st Century (49 U.S.C. 31305).

Section 4129 requires: (1) Elimination of the requirement for 3 years of experience operating CMVs while being treated with insulin; and (2) establishment of a specified minimum period of insulin use to demonstrate stable control of diabetes before being allowed to operate a CMV.

In response to section 4129, FMCSA made immediate revisions to the diabetes exemption program established by the September 3, 2003 notice. FMCSA discontinued use of the 3-year driving experience and fulfilled the requirements of section 4129 while continuing to ensure that operation of CMVs by drivers with ITDM will achieve the requisite level of safety required of all exemptions granted under 49 U.S.C. 31136 (e).

Section 4129(d) also directed FMCSA to ensure that drivers of CMVs with ITDM are not held to a higher standard than other drivers, with the exception of limited operating, monitoring and medical requirements that are deemed medically necessary.

The FMCSA concluded that all of the operating, monitoring and medical requirements set out in the September 3, 2003 notice, except as modified, were in compliance with section 4129(d). Therefore, all of the requirements set out in the September 3, 2003 notice, except as modified by the notice in the **Federal Register** on November 8, 2005 (70 FR 67777), remain in effect.

IV. Submitting Comments

You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. FMCSA recommends that you include your name and a mailing address, an email address, or a phone number in the body of your document so that FMCSA can contact you if there are questions regarding your submission.

To submit your comment online, go to *http://www.regulations.gov* and in the search box insert the docket number FMCSA–2017–0031 and click the search button. When the new screen appears, click on the blue ''Comment Now!''

[1] Section 4129(a) refers to the 2003 notice as a ''final rule.'' However, the 2003 notice did not issue a ''final rule'' but did establish the procedures and standards for issuing exemptions for drivers with ITDM.

button on the right hand side of the page. On the new page, enter information required including the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments 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. FMCSA may issue a final determination at any time after the close of the comment period.

V. Viewing Comments and Documents

To view comments, as well as any documents mentioned in this preamble, go to *http://www.regulations.gov* and in the search box insert the docket number FMCSA–2017–0031 and click ''Search.'' Next, click ''Open Docket Folder'' and you will find all documents and comments related to this notice.

Issued on: April 19, 2017.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2017–08513 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2000–7363; FMCSA–2000–7918; FMCSA–2000–8398; FMCSA–2002–13411; FMCSA–2004–17984; FMCSA–2006–24015; FMCSA–2006–24783; FMCSA–2006–25246; FMCSA–2006–26066; FMCSA–2008–0266; FMCSA–2008–0292; FMCSA–2008–0340; FMCSA–2010–0201; FMCSA–2010–0385; FMCSA–2012–0337; FMCSA–2012–0338; FMCSA–2012–0339; FMCSA–2014–0296; FMCSA–2014–0299; FMCSA–2014–0301]

Qualification of Drivers; Exemption Applications; Vision

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition.

SUMMARY: FMCSA announces its decision to renew exemptions for 62 individuals from the vision requirement in the Federal Motor Carrier Safety Regulations (FMCSRs) for interstate commercial motor vehicle (CMV) drivers. The exemptions enable these individuals to continue to operate CMVs in interstate commerce without meeting the vision requirement in one eye.

DATES: Each group of renewed exemptions was effective on the dates stated in the discussions below and will expire on the dates stated in the discussions below.

FOR FURTHER INFORMATION CONTACT: Ms. Christine A. Hydock, Chief, Medical Programs Division, 202–366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue SE., Room W64–224, Washington, DC 20590–0001. Office hours are from 8:30 a.m. to 5 p.m., e.t., Monday through Friday, except Federal holidays. If you have questions regarding viewing or submitting material to the docket, contact Docket Services, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

I. Electronic Access

You may see all the comments online through the Federal Document Management System (FDMS) at: *http://www.regulations.gov*.

Docket: For access to the docket to read background documents or comments, go to *http//www.regulations.gov* and/or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *http://www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *http://www.dot.gov/privacy*.

II. Background

On March 8, 2017, FMCSA published a notice announcing its decision to renew exemptions for 62 individuals from the vision requirement in 49 CFR 391.41(b)(10) to operate a CMV in interstate commerce and requested comments from the public (82 FR 13043). The public comment period ended on April 7, 2017, and no comments were received.

As stated in the previous notice, FMCSA has evaluated the eligibility of these applicants and determined that renewing these exemptions would achieve a level of safety equivalent to or greater than the level that would be achieved by complying with the current regulation 49 CFR 391.41(b)(10).

The physical qualification standard for drivers regarding vision found in 49 CFR 391.41(b)(10) states that a person is physically qualified to driver a CMV if that person:

> Has distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses, distant binocular acuity of a least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70° in the horizontal meridian in each eye, and the ability to recognize the colors of traffic signals and devices showing red, green, and amber.

III. Discussion of Comments

FMCSA received no comments in this preceding.

VI. Conclusion

As of March 1, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 16 individuals have satisfied the conditions for obtaining a renewed exemption from the vision requirements (69 FR 33997; 69 FR 61292; 71 FR 32183; 71 FR 41310; 71 FR 55820; 71 FR 63379; 71 FR 63380; 72 FR 180; 72 FR 1050; 72 FR 9397; 73 FR 36955; 73 FR 61922; 73 FR 61925; 73 FR 74563; 73 FR 75803; 73 FR 78422; 74 FR 6209; 74 FR 6211; 75 FR 36778; 75 FR 54958; 75 FR 59327; 75 FR 70078; 75 FR 77949; 75 FR 79083; 76 FR 4413; 76 FR 9865; 77 FR 48590; 77 FR 68199; 77 FR 68200; 77 FR 70534; 77 FR 74273; 77 FR 74731; 78 FR 797; 78 FR 9772; 78 FR 11731; 78 FR 12811; 78 FR 12813; 78 FR 12817; 79 FR 58856; 79 FR 59357; 79 FR 65760; 79 FR 72754; 79 FR 73397; 79 FR 73687; 80 FR 3305; 80 FR 3308; 80 FR 3723; 80 FR 8751; 80 FR 9304):

Jawad K. Al-Shaibani (WA)
Keith E. Breeding (IN)
Robert M. Cassell, Jr. (NC)
Steven J. Clark (GA)
Joseph Colecchi (PA)
Thomas A. Crowell (NC)
David M. Hagadorn (NJ)
Ricky G. Jacks (AL)
William D. Koiner (TX)
David S. Matheny (WA)
Elmer R. Miller (IL)
Jeffrey L. Olson (MN)
Randall S. Surber (WV)
Ernest W. Waff (VA)
Curtis E. Way (TX)
Patricia A. White (IL)

The drivers were included in one of the following docket Nos: FMCSA–2004–17984; FMCSA–2006–24783; FMCSA–2006–25246; FMCSA–2006–26066; FMCSA–2008–0292; FMCSA–2008–0340; FMCSA–2010–0201; FMCSA–2012–0337; FMCSA–2012–0338; FMCSA–2012–0339; FMCSA–2014–0296; FMCSA–2014–0299. Their exemptions are effective as of March 1, 2017, and will expire on March 1, 2019.

As of March 4, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 8 individuals have satisfied the conditions for obtaining a renewed exemption from the vision requirements (65 FR 45817; 65 FR 77066; 67 FR 71610; 67 FR 76439; 68 FR 10298; 70 FR 7545; 72 FR 7812; 74 FR 6689; 76 FR 9859; 78 FR 8689; 80 FR 7678):

Kirk G. Braegger (UT)
Ambrosio Calles (NM)
Harry P. Henning (PA)
Christopher L. Humphries (TX)
Ralph J. Miles (OR)
Stanley B. Salkowski, III (PA)
Michael G. Thomas (PA)
William H. Twardus (DE)

The drivers were included in one of the following docket Nos: FMCSA–2000–7363; FMCSA–2002–13411. Their exemptions are effective as of March 4, 2017, and will expire on March 4, 2019.

As of March 7, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 23 individuals have satisfied the conditions for obtaining a renewed exemption from the vision requirements (65 FR 66286; 66 FR 13825; 68 FR 10300; 70 FR 7546; 72 FR 180; 72 FR 7111; 72 FR 9397; 74 FR 6211; 74 FR 6212; 75 FR 77942; 76 FR 5425; 76 FR 9861; 78 FR 10250; 80 FR 6162; 80 FR 7679; 80 FR 20562):

Jason P. Atwater (UT)
Barry W. Borger (PA)
William W. Dugger (KY)
Steven D. Ellsworth (IL)
Glen T. Garrabrant (NJ)
Richard A. Guthrie (MT)
Abdalla M. Jalili (IL)
Alan L. Johnston (IL)
David M. Krause (WI)
Stephen C. Martin (PA)
James E. Menz (NY)
Ronald M. Metzger (NY)
Gerald D. Milner (IL)
Ali Nimer (IL)
Richard A. Pierce (MO)
Rance A. Powell (AL)
Shannon E. Rasmussen (WY)
Richard P. Rebel (ND)
Mustafa Shahadeh (OH)
Charles P. Smith (MO)
Timothy R. Tedford (IL)
Melvin L. Vaughn (WI)
Rick L. Wood (PA)

The drivers were included in one of the following docket Nos: FMCSA–2000–7918; FMCSA–2006–25246; FMCSA–2010–0385; FMCSA–2014–0301. Their exemptions are effective as of March 7, 2017, and will expire on March 7, 2019.

As of March 23, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 15 individuals have satisfied the conditions for obtaining a renewed exemption from the vision requirements (65 FR 66286; 65 FR 78256; 66 FR 13825; 66 FR 16311; 67 FR 76439; 68 FR 10298; 68 FR 13360; 70 FR 7545; 70 FR 12265; 71 FR 14566; 71 FR 30227; 72 FR 180; 72 FR 7812; 72 FR 9397; 72 FR 11426; 73 FR 27014; 73 FR 51689; 73 FR 63047; 73 FR 75803; 74 FR 6209; 74 FR 6689; 74 FR 8302; 75 FR 77942; 75 FR 77949; 76 FR 4413; 76 FR 5425; 76 FR 9859; 76 FR 9861; 76 FR 11215; 78 FR 8689; 78 FR 12822; 78 FR 14410; 80 FR 15859):

Howard K. Bradley (VA)
Willie Burnett, Jr. (FL)
Marcus L. Conner (TX)
Thomas G. Danclovic (MO)
Donald K. Driscoll (MA)
William G. Holland (AR)
Gerald D. Larson
Thomas F. Marczewski (WI)
Roy E. Mathews (FL)
James T. McGraw, Jr. (PA)
Robert S. Metcalf (AZ)
Bobby G. Pool, Sr. (TX)
Steve A. Reece (TN)
Jeremichael Steele (NC)
Wade D. Taylor (MO)

The drivers were included in one of the following docket Nos: FMCSA–2000–7918; FMCSA–2000–8398; FMCSA–2002–13411; FMCSA–2006–24015; FMCSA–2006–25246; FMCSA–2008–0266; FMCSA–2008–0340; FMCSA–2010–0385. Their exemptions are effective as of March 23, 2017, and will expire on March 23, 2019.

In accordance with 49 U.S.C. 31315, each exemption will be valid for two years from the effective date unless revoked earlier by FMCSA. The exemption will be revoked if the following occurs: (1) The person fails to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained prior to being granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136 and 31315.

Issued on: April 19, 2017.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2017–08511 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2007–0070; FMCSA–2014–0313]

Qualification of Drivers; Exemption Applications; Diabetes

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition.

SUMMARY: FMCSA announces its decision to renew exemptions of 71 individuals from its prohibition in the Federal Motor Carrier Safety Regulations (FMCSRs) against persons with insulin-treated diabetes mellitus (ITDM) from operating commercial motor vehicles (CMVs) in interstate commerce. The exemptions enable these individuals with ITDM to continue to operate CMVs in interstate commerce.

DATES: Each group of renewed exemptions was effective on the dates stated in the discussions below and will expire on the dates stated in the discussions below.

FOR FURTHER INFORMATION CONTACT: Ms. Christine A. Hydock, Chief, Medical Programs Division, 202–366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue SE., Room W64–224, Washington, DC 20590–0001. Office hours are from 8 a.m. to 5:30 p.m., e.t., Monday through Friday, except Federal holidays. If you have questions regarding viewing or submitting material to the docket, contact Docket Services, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

I. Electronic Access

You may see all the comments online through the Federal Document Management System (FDMS) at: *http://www.regulations.gov.*

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* and/or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *http://www.regulations.gov,* as described in the system of records

notice (DOT/ALL–14 FDMS), which can be reviewed at *http://www.dot.gov/privacy.*

II. Background

On March 9, 2017, FMCSA published a notice announcing its decision to renew exemptions for 71 individuals from the insulin-treated diabetes mellitus prohibition in 49 CFR 391.41(b)(3) to operate a CMV in interstate commerce and requested comments from the public (82 FR 13180). The public comment period ended on April 10, 2017, and no comments were received.

As stated in the previous notice, FMCSA has evaluated the eligibility of these applicants and determined that renewing these exemptions would achieve a level of safety equivalent to or greater than the level that would be achieved by complying with the current regulation 49 CFR 391.41(b)(3).

The physical qualification standard for drivers regarding diabetes found in 49 CFR 391.41(b)(3) states that a person is physically qualified to drive a CMV if that person has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control.

III. Discussion of Comments

FMCSA received no comments in this preceding.

IV. Conclusion

Based upon its evaluation of the 71 renewal exemption applications and that no comments were received, FMCSA confirms its' decision to exempt the following drivers from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce in 49 CFR 391.41(b)(3).

As of March 12, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 16 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (73 FR 6248; 73 FR 13274):

Richard L. Burwell (OH)
David Clemente, Sr. (NJ)
Timothy M. Collier (NY)
William M. Dement (MO)
James O. Hamilton (OH)
William B. Jenks, Jr. (UT)
Timothy L. Johnson (IA)
Douglas O. Krosch (MN)
Robert E. Martin (MO)
Garrett A. Phillips (NY)
Randy L. Quattlebaum (TX)
Mark C. Smith (NE)
Billy J. Stamper (OK)
Robert E. Tauriainen (OR)
David B. Tomlin (AL)
Brian T. Tow (WA)

The drivers were included in docket No. FMCSA–2007–0070. Their exemptions are effective as of March 12, 2017, and will expire on March 12, 2019.

As of March 24, 2017, and in accordance with 49 U.S.C. 31136(e) and 31315, the following 55 individuals have satisfied the renewal conditions for obtaining an exemption from the rule prohibiting drivers with ITDM from driving CMVs in interstate commerce (80 FR 8929; 80 FR 24313):

Timothy E. Adkins (KY)
Daniel S. Arke (HI)
Raul Arlequin Jr. (FL)
Chad W. Beeman (NY)
Jeffrey S. Bohle (IA)
Bradley T. Boyd (IA)
Bradley M. Brauer (NE)
Gary W. Brendel (NY)
Thomas Browning (PA)
Kell D. Busby, Jr. (MI)
Rafael B. Castillo (NJ)
Zachary D. Craig (ND)
Terry R. Darnall (IL)
Raymond W. Dropps (MN)
Curtis W. Fox (IN)
William H. Geiselhart, Jr. (PA)
Darrel G. Goetz (MO)
Chris S. Hammack (CO)
James P. Hancock, Jr. (PA)
Donald S. Hanson (MN)
Michael Hasley (AR)
Gene A. Heibult (SD)
Ronald R. Herrington (WV)
Jay H. Hess (PA)
Kevin L. Holmes (IL)
Claude E. Hoskins (WA)
Ulysses Jones (IN)
Sean M. Jordan (PA)
Steven N. Kemp (TX)
Tracy A. Knake (IA)
Robert E. Lane (IN)
Jason C. Lewis (MD)
Corey A. Maas (KS)
James P. MacDonald (MA)
Timothy D. Maxson (NY)
Guy D. McGuire (MD)
Roy A. Montalvan (PA)
Justin M. Powell (NC)
Jackie Riley (NC)
Rudy A. Rodriguez (OR)
Philip M. Schopp (MO)
Andrew T. Segetti (CT)
Roger L. Shones (MN)
William L. Sirabella (RI)
Ronald D. Strobo (FL)
Rodney H. Swartz (NY)
David A. Tipps (IL)
Keith J. Tschetter (ND)
Sean E. Twohig (NY)
Jimmie W. Ward (NC)
Michael R. Waskow (WI)
James B. Westphal (WI)
John A. Winquist (SD)
Robert J. Wyand (NY)
Michael E. Zincone (RI)

The drivers were included in docket No. FMCSA–2014–0313. Their exemptions are effective as of March 24, 2017, and will expire on March 24, 2019.

In accordance with 49 U.S.C. 31315, each exemption will be valid for two years from the effective date unless revoked earlier by FMCSA. The exemption will be revoked if the following occurs: (1) The person fails to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained prior to being granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136 and 31315.

Issued on: April 19, 2017.

Larry W. Minor,

Associate Administrator for Policy.

[FR Doc. 2017–08512 Filed 4–26–17; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

FY 2017 Competitive Funding Opportunity: Low or No Emission Grant Program

AGENCY: Federal Transit Administration (FTA), DOT.

ACTION: Notice of funding opportunity (NOFO).

SUMMARY: The Federal Transit Administration (FTA) announces the opportunity to apply for $55 million in FY 2017 funds for the Low or No Emission Bus Discretionary Grant Program (Low-No Program; Catalog of Federal Domestic Assistance (CFDA) number: 20.526), subject to funding availability. Only $31.5 million is available under the Continuing Resolution that expires on April 28, 2017. As required by Federal transit law (49 U.S.C. 5339(c)) and subject to funding availability, funds will be awarded competitively for the purchase or lease of low or no emission vehicles that use advanced technologies for transit revenue operations, including related equipment or facilities. Projects may include costs incidental to the acquisition of buses or to the construction of facilities, such as the costs of related workforce development and training activities, and project administration expenses. FTA may award additional funding that is made available to the program prior to the announcement of project selections.

DATES: Complete proposals must be submitted electronically through the GRANTS.GOV ''APPLY'' function by June 26, 2017. Prospective applicants should initiate the process by registering on the GRANTS.GOV Web site promptly to ensure completion of the application process before the submission deadline. Instructions for applying can be found on FTA's Web site at *http://transit.dot.gov/howtoapply* and in the ''FIND'' module of GRANTS.GOV. The funding opportunity ID is FTA–2017–003-LowNo. Mail and fax submissions will not be accepted.

FOR FURTHER INFORMATION CONTACT: Tara Clark, FTA Office of Program Management, 202–366–2623, or *tara.clark@dot.gov.*

SUPPLEMENTARY INFORMATION:

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A. Program Description

Section 5339(c) of Title 49, United States Code, as amended by the Fixing America's Surface Transportation (FAST) Act, (Pub. L. 114–94, Dec. 4, 2015), authorizes FTA to award grants for low or no emission buses through a competitive process, as described in this notice. The Low or No Emission Bus Program (Low-No Program) provides funding to State and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses, including acquisition, construction, and leasing of required supporting facilities such as recharging, refueling, and maintenance facilities. FTA recognizes that a significant transformation is occurring in the transit bus industry, with the increasing availability of low and zero emission bus vehicles for transit revenue operations.

B. Federal Award Information 5339(c) Low or No Emission Discretionary Program

Federal transit law authorizes $55 million in FY 2017 for grants under the Low-No Program. In FY 2016, the program received applications for 101 projects requesting a total of $446 million. Twenty projects were funded at a total of $55 million.

FTA will grant pre-award authority starting on the date of project announcement for the FY 2017 awards. Funds are available for obligation until September 30, 2020. Funds are only available for projects that have not incurred costs.

C. Eligibility Information

1. Eligible Applicants

Eligible applicants include designated recipients, States, local governmental authorities, and Indian Tribes. Except for projects proposed by Indian Tribes, proposals for funding projects in rural (non-urbanized) areas must be submitted as part of a consolidated State proposal. To be considered eligible, applicants must be able to demonstrate the requisite legal, financial and technical capabilities to receive and administer Federal funds under this program. States and other eligible applicants also may submit consolidated proposals for projects in urbanized areas. Proposals may contain projects to be implemented by the recipient or its eligible subrecipients. Eligible subrecipients are entities that are otherwise eligible recipients under this program.

An eligible recipient may submit an application in partnership with other entities that intend to participate in the implementation of the project, including, but not limited to, specific vehicle manufacturers, equipment vendors, owners or operators of related facilities, or project consultants. If an application that involves such a partnership is selected for funding, the competitive selection process will be deemed to satisfy the requirement for a competitive procurement under 49 U.S.C. 5325(a) for the named entities. Applicants are advised that any changes to the proposed partnership will require advance FTA written approval, must be consistent with the scope of the approved project, and may necessitate a competitive procurement.

2. Cost Sharing or Matching

All eligible expenses under the Low-No Program are attributable to compliance with the Clean Air Act. Therefore, under the provisions of 49 U.S.C. 5323(i), the maximum Federal participation in the costs of leasing or acquiring a transit bus financed under the Low-No Program is 85 percent of the total transit bus cost. The proposer may request a lower Federal contribution. Further, the maximum Federal participation in the cost of leasing or acquiring low or no emission bus-related equipment and facilities under the Low-No Program, such as recharging or refueling facilities, is 90 percent of the net project cost of the equipment or facilities that are attributable to compliance with the Clean Air Act.

Eligible sources of local match include the following: cash from non-Government sources other than revenues from providing public transportation services; revenues derived from the sale of advertising and concessions; amounts received under a service agreement with a State or local social service agency or private social service organization; revenues generated from value capture financing mechanisms; funds from an undistributed cash surplus; replacement or depreciation cash fund or reserve; new capital; or in-kind contributions. In addition, transportation development credits or documentation of in-kind match may substitute for local match if identified in the application.

3. Eligible Projects

Under 49 U.S.C. 5339 (c)(B), eligible projects include projects or programs of projects in an eligible area for: (1) Purchasing or leasing low or no emission buses; (2) acquiring low or no emission buses with a leased power source; (3) constructing or leasing facilities and related equipment for low or no emission buses; (4) constructing new public transportation facilities to accommodate low or no emission buses; (5) or rehabilitating or improving existing public transportation facilities to accommodate low or no emission buses. As specified under 49 U.S.C. 5339(c)(5)(A), FTA will only consider eligible projects relating to the acquisition or leasing of low or no emission buses or bus facilities that make greater reductions in energy consumption and harmful emissions than comparable standard buses or other low or no emission buses. As specified under 49 U.S.C. 5339(c)(5)(B), all proposed projects must be part of the intended recipient's long-term integrated fleet management plan.

If a single project proposal involves multiple public transportation providers, such as when an agency acquires vehicles that will be operated by another agency, the proposal must include a detailed statement regarding the role of each public transportation provider in the implementation of the project.

Under 49 U.S.C. 5339(c)(1)(E), a low or no-emission bus is defined as ''a passenger vehicle used to provide public transportation that significantly reduces energy consumption or harmful emissions, including direct carbon emissions, when compared to a standard vehicle.'' The statutory definition includes zero-emission transit buses, which are defined as buses that

produce no direct carbon emissions and no particulate matter emissions under any and all possible operational modes and conditions. Examples of zero emission bus technologies include, but are not limited to, hydrogen fuel-cell buses and battery-electric buses. All new transit bus models procured with funds awarded under the Low-No Program must complete FTA bus testing for production transit buses pursuant to 49 U.S.C. 5318. All transit vehicles must be procured from certified transit vehicle manufacturers in accordance with the Disadvantaged Business Enterprise (DBE) regulations at 49 CFR part 26. The development or deployment of prototype vehicles is not eligible for funding under the Low-No program.

Recipients are permitted to use up to 0.5 percent of their requested grant award for workforce development activities eligible under 49 U.S.C 5314(b) and an additional 0.5 percent for costs associated with training at the National Transit Institute. Applicants must identify the proposed use of funds for these activities in the project proposal and identify them separately in the project budget.

D. Application and Submission Information

1. Address To Request Application

Applications must be submitted electronically through *GRANTS.GOV*. General information for submitting applications through *GRANTS.GOV* can be found at *www.fta.dot.gov/howtoapply* along with specific instructions for the forms and attachments required for submission. Mail and fax submissions will not be accepted. A complete proposal submission consists of *at least* two forms: The SF424 Mandatory Form (downloaded from *GRANTS.GOV*) and the supplemental form for the FY 2017 Low-No Program (downloaded from *GRANTS.GOV* or the FTA Web site at *www.transit.dot.gov/busprogram*). Failure to submit the information as requested can delay review or disqualify the application.

2. Content and Form of Application Submission

(i) Proposal Submission

A complete proposal submission consists of *at least* two forms: (1) The SF424 Mandatory Form; and (2) the supplemental form for the FY 2017 Low-No Program. The application must include responses to all sections of the SF424 Mandatory Form and the supplemental form, unless indicated as optional. The information on the supplemental form will be used to determine applicant and project eligibility for the program, and to evaluate the proposal against the selection criteria described in part E of this notice.

An applicant may submit multiple project proposals in a single submission, but must include all project proposals on a single supplemental form. To add additional projects, select the ''add project'' button and complete a separate ''project detail'' section for each project. FTA will only accept one supplemental form per submission.

The supplemental form must be submitted as an attachment to the SF424 Mandatory Form. All project proposals will be evaluated separately, regardless of whether they are submitted as a single submission.

An applicant may submit additional supporting documentation for each project proposal as attachments. Any supporting documentation must be described and referenced by file name in the appropriate response section of the supplemental form, or it may not be reviewed.

Information such as proposer name, Federal amount requested, local match amount, description of areas served, etc. may be requested in varying degrees of detail on both the SF424 form and Supplemental Form. Proposers must fill in all fields unless stated otherwise on the forms. If information is copied into the supplemental form from another source, applicants should verify that pasted text is fully captured on the supplemental form and has not been truncated by the character limits built into the form. Proposers should use both the ''Check Package for Errors'' and the ''Validate Form'' validation buttons on both forms to check all required fields on the forms, and ensure that the federal and local amounts specified are consistent.

(ii) Application Content

The SF424 Mandatory Form and the Supplemental Form will prompt applicants for the required information, including:

a. Applicant Name
b. Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number
c. Key contact information (including contact name, address, email address, and phone)
d. Congressional district(s) where project will take place
e. Project Information (including title, an executive summary, and type)
f. A detailed description of the need for the project
g. A detailed description on how the project will support the Low-No program objectives
h. Evidence that the project is consistent with local and regional planning documents
i. Evidence that the applicant can provide the local cost share
j. A description of the technical, legal, and financial capacity of the applicant
k. A detailed project budget
l. An explanation of the scalability of the project
m. Details on the local matching funds
n. A detailed project timeline

3. Unique Entity Identifier and System for Award Management (SAM)

Each applicant is required to: (1) Be registered in SAM before submitting an application; (2) provide a valid unique entity identifier in its application; and (3) continue to maintain an active SAM registration with current information at all times during which the applicant has an active Federal award or an application or plan under consideration by FTA. These requirements do not apply if the applicant: (1) Is an individual; (2) is excepted from the requirements under 2 CFR 25.110(b) or (c); or (3) has an exception approved by FTA under 2 CFR 25.110(d). FTA may not make an Award until the applicant has complied with all applicable unique entity identifier and SAM requirements. If an applicant has not fully complied with the requirements by the time FTA is ready to make an Award, FTA may determine that the applicant is not qualified to receive an Award and use that determination as a basis for making a Federal award to another applicant. All applicants must provide a unique entity identifier provided by SAM. Registration in SAM may take as little as 3–5 business days, but since there could be unexpected steps or delays (for example, if you need to obtain an Employer Identification Number), FTA recommends allowing ample time, up to several weeks, for completion of all steps. For additional information on obtaining a unique entity identifier, please visit *www.sam.gov.*

4. Submission Dates and Times

Project proposals must be submitted electronically through *GRANTS.GOV* by 5:00 p.m. Eastern on June 26, 2017. *GRANTS.GOV* attaches a time stamp to each application at the time of submission. Proposals submitted after the deadline will only be considered under extraordinary circumstances not under the applicant's control. Mail and fax submissions will not be accepted.

Within 48 hours after submitting an electronic application, the applicant

should receive three email messages from *GRANTS.GOV*: (1) Confirmation of successful transmission to *GRANTS.GOV*, (2) confirmation of successful validation by *GRANTS.GOV*, and (3) confirmation of successful validation by FTA. If confirmations of successful validation are not received or a notice of failed validation or incomplete materials is received, the applicant must address the reason for the failed validation, as described in the email notice, and resubmit before the submission deadline. If making a resubmission for any reason, include all original attachments regardless of which attachments were updated and check the box on the supplemental form indicating this is a resubmission.

FTA urges proposers to submit applications at least 72 hours prior to the due date to allow time to receive the validation messages and to correct any problems that may have caused a rejection notification. *GRANTS.GOV* scheduled maintenance and outage times are announced on the *GRANTS.GOV* Web site. Deadlines will not be extended due to scheduled Web site maintenance.

Proposers are encouraged to begin the process of registration on the *GRANTS.GOV* site well in advance of the submission deadline. Registration is a multi-step process, which may take several weeks to complete before an application can be submitted. Registered proposers may still be required to take steps to keep their registration up to date before submissions can be made successfully: (1) Registration in the System for Award Management (SAM) is renewed annually; and, (2) persons making submissions on behalf of the Authorized Organization Representative (AOR) must be authorized in *GRANTS.GOV* by the AOR to make submissions.

5. Funding Restrictions

Funds under this NOFO cannot be used to reimburse applicants for otherwise eligible expenses incurred prior to FTA award of a Grant Agreement until FTA has issued pre-award authority for selected projects through a notification in the **Federal Register**.

6. Other Submission Requirements

Applicants are encouraged to identify scaled funding options in case insufficient funding is available to fund a project at the full requested amount. If an applicant indicates that a project is scalable, the applicant must provide an appropriate minimum funding amount that will fund an eligible project that achieves the objectives of the program and meets all relevant program requirements. The applicant must provide a clear explanation of how the project budget would be affected by a reduced award. FTA may award a lesser amount whether or not a scalable option is provided.

E. Application Review

Projects will be evaluated primarily on the responses provided in the supplemental form. Additional information may be provided to support the responses; however, any additional documentation must be directly referenced on the supplemental form, including the file name where the additional information can be found. FTA will evaluate project proposals for the Low-No Program based on the criteria described in this notice.

i. Demonstration of Need

Since the purpose of this program is to fund vehicles and facilities, applications will be evaluated based on the quality and extent to which they demonstrate how the proposed project will address an unmet need for capital investment in vehicles and/or supporting facilities. For example, an applicant may demonstrate that it requires additional or improved charging or maintenance facilities for low or no emission vehicles, that it intends to replace existing vehicles that have exceeded their minimum useful life, or that it requires additional vehicles to meet current ridership demands.

FTA will consider an applicant's responses to the following criteria when assessing need for capital investment underlying the proposed project:

a. Consistency With Long-Term Fleet Management Plan: As required by 49 U.S.C. 5339(c)(5)(b), all project proposals must demonstrate that they are part of the intended recipient's long-term integrated fleet management plan, as demonstrated through an existing transit asset management program, fleet procurement plan, or similarly documented program or policy. These plans must be attached to the application. FTA will evaluate the consistency of the proposed project with the applicant's long-term fleet management plan, as well as the applicant's previous experience with the relevant low or no emissions vehicle technologies.

b. For low or no emission bus projects (replacement and/or expansion): Applicants must provide information on the age, condition and performance of the vehicles to be replaced by the proposed project. Vehicles to be replaced must have met their minimum useful life at the time of application. For service expansion requests, applicants must provide information on the proposed service expansion and the benefits for transit riders and the community from the new service. For all vehicle projects, the proposal must address whether the project conforms to FTA's spare ratio guidelines. Low or no emission vehicles funded under this program are not exempted from FTA's standard spare ratio requirements which apply to and are calculated on the agency's entire fleet.

c. For bus facility and equipment projects (replacement, rehabilitation, and/or expansion): Applicants must provide information on the age and condition of the asset to be rehabilitated or replaced relative to its minimum useful life.

ii. Demonstration of Benefits

Applicants must demonstrate how the proposed project will support statutory requirements of 49 U.S.C. 5339(c)(5)(A). In particular, FTA will consider the quality and extent to which applications demonstrate how the proposed project will: (1) Reduce Energy Consumption; (2) Reduce Harmful Emissions; and (3) Reduce Direct Carbon Emissions.

a. Reduce Energy Consumption: Applicants must describe how the proposed project will reduce energy consumption. FTA will evaluate applications based on the degree to which the proposed technology reduces energy as compared to more common vehicle propulsion technologies.

b. Reduce Harmful Emissions: Applicants must demonstrate how the proposed vehicles or facility will reduce the emission of particulates that create local air pollution, which leads to local environmental health concerns, smog, and unhealthy ozone concentrations. FTA will evaluate the rate of particulate emissions by the proposed vehicles or vehicles to be supported by the proposed facility, compared to the emissions from the vehicles that will be replaced or moved to the spare fleet as a result of the proposed project, as well as comparable standard buses.

c. Reduce Direct Carbon Emissions: Applicants should demonstrate how the proposed vehicles or facility will reduce emissions of greenhouse gases from transit vehicle operations. FTA will evaluate the rate of direct carbon emissions by the proposed vehicles or vehicles to be supported by the proposed facility, compared to the emissions from the vehicles that will be replaced or moved to the spare fleet as a result of the proposed project, as well as comparable standard buses.

iii. Planning and Local/Regional Prioritization

Applicants must demonstrate how the proposed project is consistent with local and regional long range planning documents and local government priorities. FTA will evaluate applications based on the quality and extent to which they assess whether the project is consistent with the transit priorities identified in the long range plan; and/or contingency/illustrative projects included in that plan; or the locally-developed human services public transportation coordinated plan. Applicants are not required to submit copies of such plans, but FTA will consider how the project will support regional goals and may submit support letters from local and regional planning organizations attesting to the consistency of the proposed project with these plans.

Evidence of additional local or regional prioritization may include letters of support for the project from local government officials, public agencies, and non-profit or private sector partners.

iv. Local Financial Commitment

Applicants must identify the source of the local cost share and describe whether such funds are currently available for the project or will need to be secured if the project is selected for funding. FTA will consider the availability of the local cost share as evidence of local financial commitment to the project. Applicants should submit evidence of the availability of funds for the project, for example by including a board resolution, letter of support from the State, or other documentation of the source of local funds such as a budget document highlighting the line item or section committing funds to the proposed project. In addition, an applicant may propose a local cost share that is greater than the minimum requirement or provide documentation of previous local investments in the project, which cannot be used to satisfy local matching requirements, as evidence of local financial commitment. FTA will also note if an applicant proposes to use grant funds only for the incremental cost of new technologies over the cost of replacing vehicles with standard propulsion technologies.

v. Project Implementation Strategy

FTA will rate projects higher if grant funds can be obligated within 12 months of selection and the project can be implemented within a reasonable time frame. In assessing when funds can be obligated FTA will consider whether the project qualifies for a Categorical Exclusion (CE), or whether the required environmental work has been initiated or completed for projects that require an Environmental Assessment (EA) or Environmental Impact Statement (EIS) under the National Environmental Policy Act of 1969 (NEPA), as amended. The proposal must state when if grant funds can be obligated and indicate the timeframe under which the Metropolitan Transportation Improvement Program (TIP) and/or Statewide Transportation Improvement Program (STIP) can be amended to include the proposed project.

In assessing whether the proposed implementation plans are reasonable and complete, FTA will review the proposed project implementation plan, including all necessary project milestones and the overall project timeline. For projects that will require formal coordination, approvals or permits from other agencies or project partners, the applicant must demonstrate coordination with these organizations and their support for the project, such as through letters of support.

For project proposals that involve a partnership with a manufacturer, vendor, consultant, or other third party, applicants must identify by name any project partners, including but not limited to other transit agencies, bus manufacturers, owners or operators of related facilities, or any expert consultants. FTA will evaluate the experience and capacity of the named project partners to successfully implement the proposed project based on the partners' experience and qualifications. Applicants are advised to submit information on the partners' qualification and experience as a part of the application. Entities involved in the project that are not named in the application will be required to be selected through a competitive procurement.

For project proposals that will require a competitive procurement, applicants must demonstrate familiarity with the current market availability of the proposed advanced vehicle propulsion technology.

vi. Technical, Legal, and Financial Capacity

Applicants must demonstrate that they have the technical, legal and financial capacity to undertake the project. FTA will review relevant oversight assessments and records to determine whether there are any outstanding legal, technical, or financial issues with the applicant that would affect the outcome of the proposed project.

vii. Review and Selection Process

In addition to other FTA staff that may review the proposals, a technical evaluation committee will evaluate proposals based on the published evaluation criteria. Members of the technical evaluation committee and other FTA staff may request additional information from applicants, if necessary. Based on the findings of the technical evaluation committee, the FTA Administrator will determine the final selection of projects for program funding. FTA may consider geographic diversity, diversity in the size of the transit systems receiving funding, and/or the applicant's receipt of other competitive awards in determining the allocation of program funds. FTA may consider capping the amount a single applicant may receive.

F. Federal Award Administration

Subsequent to an announcement by the FTA Administrator of the final project selections, which will be posted on the FTA Web site, FTA will publish a list of the selected projects, Federal award amounts, and recipients in the **Federal Register**. Project recipients should contact their FTA Regional Offices for additional information regarding allocations for projects under the Bus and Low-No Programs.

At the time the project selections are announced, FTA will extend pre-award authority for the selected projects. There is no blanket pre-award authority for these projects before announcement.

1. Federal Award Notices

Funds under the Low-No Program are available to States, designated recipients, local governmental authorities and Indian Tribes. There is no minimum or maximum grant award amount; however, FTA intends to fund as many meritorious projects as possible. Only proposals from eligible recipients for eligible activities will be considered for funding. Due to funding limitations, proposers that are selected for funding may receive less than the amount originally requested. In those cases, applicants must be able to demonstrate that the proposed projects are still viable and can be completed with the amount awarded.

2. Administrative and National Policy Requirements

i. Pre-Award Authority

FTA will issue specific guidance to recipients regarding pre-award authority at the time of selection. FTA does not provide pre-award authority for

discretionary funds until projects are selected and even then there are Federal requirements that must be met before costs are incurred. For more information about FTA's policy on pre-award authority, please see the FY 2016 Apportionment Notice published on February 16, 2016. *https://www.gpo.gov/fdsys/pkg/FR-2016-02-16/pdf/2016-02821.pdf*.

ii. Grant Requirements

If selected, awardees will apply for a grant through FTA's Transit Award Management System (TrAMS). All Low-No Emission recipients are subject to the grant requirements of Section 5307 Urbanized Area Formula Grant program, including those of FTA Circular 9030.1E. All recipients must follow the Grants Management Requirements of FTA Circular 5010.1D or its latest version, and the labor protections of 49 U.S.C. 5333(b). All discretionary grants, regardless of award amount, will be subject to the congressional notification and release process. Technical assistance regarding these requirements is available from each FTA regional office.

iii. Buy America

FTA requires that all capital procurements meet FTA's Buy America requirements, which require that all iron, steel, or manufactured products be produced in the U.S. These requirements help create and protect manufacturing jobs in the U.S. The Low-No Program will have a significant economic impact on meeting the objectives of the Buy America law. The FAST Act amended the Buy America requirements to provide for a phased increase in the domestic content for rolling stock. For FY17, the cost of components and subcomponents produced in the United States must be more than 60 percent of the cost of all components. For FY18 and FY19, the cost of components and subcomponents produced in the United States must be more than 65 percent of the cost of all components. For FY20 and beyond, the cost of components and subcomponents produced in the United States must be more than 70 percent of the cost of all components. There is no change to the requirement that final assembly of rolling stock must occur in the United States. FTA issued guidance on the implementation of the phased increase in domestic content on September 1, 2016. A copy of the policy guidance may be found in 81 FR 60278 (September 1, 2016). Applicants should read the policy guidance carefully to determine the applicable domestic content requirement for their project. Any proposal that will require a waiver must identify the items for which a waiver will be sought in the application. Applicants should not proceed with the expectation that waivers will be granted, nor should applicants assume that selection of a project under the Low-No Program that includes a partnership with a manufacturer, vendor, consultant, or other third party constitutes a waiver of the Buy America requirements for rolling stock applicable at the time the project is undertaken.

iv. Disadvantaged Business Enterprise

FTA requires that its recipients receiving planning, capital and/or operating assistance that will award prime contracts exceeding $250,000 in FTA funds in a Federal fiscal year comply with the Disadvantaged Business Enterprise (DBE) program regulations at 49 CFR part 26. Applicants should expect to include any funds awarded, excluding those to be used for vehicle procurements, in setting their overall DBE goal. Note, however, that projects including vehicle procurements remain subject to the DBE program regulations. The rule requires that, prior to bidding on any FTA-assisted vehicle procurement, entities that manufacture vehicles, perform post-production alterations or retrofitting must submit a DBE Program plan and goal methodology to FTA. Further, to the extent that a vehicle remanufacturer is responding to a solicitation for new or remanufactured vehicles with a vehicle to which the remanufacturer has provided post-production alterations or retro-fitting (*e.g.,* replacing major components such as engine to provide a ''like new'' vehicle), the vehicle remanufacturer is considered a transit vehicle manufacturer and must also comply with the DBE regulations.

The FTA will then issue a transit vehicle manufacturer (TVM) concurrence/certification letter. Grant recipients must verify each entity's compliance with these requirements before accepting its bid. A list of compliant, certified TVMs is posted on FTA's Web page at *https://www.fta.dot.gov/regulations-and-guidance/civil-rights-ada/eligible-tvms-list*. Please note, that this list is nonexclusive and recipients must contact FTA before accepting bids from entities not listed on this web-posting. Recipients may also establish project specific DBE goals for vehicle procurements. FTA will provide additional guidance as grants are awarded. For more information on DBE requirements, please contact Janelle Hinton, Office of Civil Rights, 202–366–9259, email: *janelle.hinton@dot.gov*.

v. Planning

FTA encourages proposers to notify the appropriate State Departments of Transportation and MPOs in areas likely to be served by the project funds made available under these initiatives and programs. Selected projects must be incorporated into the long-range plans and transportation improvement programs of States and metropolitan areas before they are eligible for FTA funding.

vi. Standard Assurances

The applicant assures that it will comply with all applicable Federal statutes, regulations, executive orders, directives, FTA circulars, and other Federal administrative requirements in carrying out any project supported by the FTA grant. The applicant acknowledges that it is under a continuing obligation to comply with the terms and conditions of the grant agreement issued for its project with FTA. The applicant understands that Federal laws, regulations, policies, and administrative practices might be modified from time to time and may affect the implementation of the project. The applicant agrees that the most recent Federal requirements will apply to the project, unless FTA issues a written determination otherwise. The applicant must submit the Certifications and Assurances before receiving a grant if it does not have current certifications on file.

3. Reporting

Post-award reporting requirements include the electronic submission of Federal Financial Reports and Milestone Reports in FTA's electronic grants management system.

G. Federal Awarding Agency Contacts

This program is not subject to Executive Order 12372, ''Intergovernmental Review of Federal Programs.'' FTA will consider applications for funding only from eligible recipients for eligible projects listed in Section C. Complete applications must be submitted through *GRANTS.GOV* by 5:00 p.m. EDT June 26, 2017. For issues with *GRANTS.GOV* please contact *GRANTS.GOV* by phone at 1–800–518–4726 or by email at *support@grants.gov*. Contact information for FTA's regional offices can be found on FTA's Web site at *www.fta.dot.gov*.

H. Technical Assistance and Other Program Information

For further information concerning this notice, please contact the Low-No Program manager Tara Clark by phone

at 202–366–2623, or by email at *tara.clark@dot.gov*. A TDD is available for individuals who are deaf or hard of hearing at 800–877–8339. In addition, FTA will post answers to questions and requests for clarifications on FTA's Web site at *http://transit.dot.gov/busprogram*. To ensure applicants receive accurate information about eligibility or the program, the applicant is encouraged to contact FTA directly, rather than through intermediaries or third parties, with questions. FTA staff may also conduct briefings on the FY 2017 discretionary grants selection and award process upon request.

Matthew J. Welbes,

Executive Director.

[FR Doc. 2017–08489 Filed 4–26–17; 8:45 am]

BILLING CODE P

DEPARTMENT OF THE TREASURY

Community Development Financial Institutions Fund

Announcement Type: Notice and Request for Public Comment

AGENCY: Community Development Financial Institutions Fund, Treasury.

ACTION: Notice.

SUMMARY: The Department of the Treasury, 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. Currently, the Community Development Financial Institutions Fund (CDFI Fund), U.S. Department of the Treasury, is soliciting comments concerning the Community Development Financial Institutions CDFI Program (CDFI Program) and New Markets Tax Credit Program (NMTC Program) Annual Report including the Community Investment Impact System (CIIS).

DATES: Written comments must be received on or before June 26, 2017 to be assured of consideration.

ADDRESSES: Submit your comments via email to Greg Bischak, Program Manager for Financial Strategies and Research, CDFI Fund, at *cdfihelp@cdfi.treas.gov.*

FOR FURTHER INFORMATION CONTACT: Greg Bischak, Program Manager for Financial Strategies and Research, Community Development Financial Institutions Fund, U.S. Department of the Treasury, 1500 Pennsylvania Ave. NW., Washington, DC 20220. Other information regarding the CDFI Fund and its programs may be obtained through the CDFI Fund's Web site at *http://www.cdfifund.gov.*

SUPPLEMENTARY INFORMATION:

Title: CDFI Program and NMTC Program Annual Report including CIIS.

OMB Number: 1559–0027.

Abstract: This collection captures quantitative information from Community Development Financial Institutions (CDFI) and Community Development Entities (CDE) at the institution and transaction levels. This information is used to assess: (1) The recipient's/allocatee's activities as detailed in its application materials; (2) the recipient's/allocatee's approved use of the assistance; (3) the recipient's/allocatee's financial condition; (4) the socio-economic characteristics of recipient's/allocatee's borrowers/investees, loan and investment terms, repayment status, and community development outcomes; and (5) overall compliance with the terms and conditions of the assistance/allocation agreement entered into by the CDFI Fund and the recipient/allocatee.

A CDFI Program or Native American CDFI Assistance Program (NACA Program) recipient must submit an Annual Report that comprises of several sections that depend on the program and the type of award. The specific components that comprise a recipient's Annual Report are set forth in the assistance agreement that the recipient enters into with the CDFI Fund in order to receive a CDFI Program or a NACA Program award. These reporting requirements can be found in the assistance agreement templates located on the CDFI Fund Web site at *www.cdfifund.gov.* NMTC Program allocatees must submit an Annual Report that comprises: (i) A financial statement that has been audited by an independent certified public accountant; (ii) an Institution Level Report (ILR) (including the IRS Compliance Questions section), if the allocatee has issued any Qualified Equity Investments; and (iii) a Transaction Level Report (TLR) if the allocatee has issued any Qualified Low-Income Community Investments in the form of loans or investments. The components that comprise an allocatee's Annual Report are set forth in the allocation agreement that the allocatee enters into with the CDFI Fund in order to receive a NMTC Program allocation. These requirements can be found in the allocation agreement templates located on the CDFI Fund Web site at *www.cdfifund.gov.*

Type of Review: Regular Review.

Affected Public: CDFIs and CDEs; including businesses or other for-profit institutions, non-profit entities, and State, local and Tribal entities participating in CDFI Fund programs.

Estimated Number of Respondents:

CDFI TA Annual ILR: 65.

CDFI Annual TLR and ILR: 245.

NMTC Annual Report: 275.

Estimated Annual Time Per Respondent:

CDFI TA Annual ILR: 25.

CDFI Annual TLR and ILR: 115.

NMTC Annual Report: 85.

Estimated Total Annual Burden Hours: 53,175.

CDFI TA Annual ILR: 1,625.

CDFI Annual TLR and ILR: 28,175.

NMTC Annual Report: 23,375.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on all aspects of the information collections, but commentators may wish to focus particular attention on: (a) The cost for CDFIs and CDEs to operate and maintain the services/systems required to provide the required information; (b) ways to enhance the quality, utility, and clarity of the information to be collected; (c) whether the collection of information is necessary for the proper evaluation of the effectiveness and impact of the CDFI Fund's programs, including whether the information has practical utility; (d) the accuracy of the CDFI Fund's estimate of the burden of the collection of information; (e) ways to minimize the burden of the collection of information including through the use of technology, such as software for internal accounting and geocoding to capture geographic detail while streamlining and aggregating TLR reporting for upload to CIIS, and; (f) what methods might be used to improve the data quality, internal accounting and efficiency of reporting transactions for serving other targeted populations.

Please note that this request for public comment is necessary in order to renew the CIIS data collection under the Paperwork Reduction Act. Next year the CDFI Fund plans to integrate the CIIS data collection into the CDFI Fund's Awards Management Information System (AMIS). It is anticipated that the transition to AMIS will result in streamlining of the CIIS data collections and a reduction of reporting burden. The CDFI Fund will publish a request for public comment at that time to solicit feedback on the proposed revisions and potential effects on reporting burdens.

Authority: 12 U.S.C. 4707 *et seq.;* 26 U.S.C. 45D; 12 CFR part 1805.

Mary Ann Donovan,

Director, Community Development Financial Institutions Fun.

[FR Doc. 2017–08454 Filed 4–26–17; 8:45 am]

BILLING CODE 4810–70–P

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

[Docket ID OCC–2017–0006]

Mutual Savings Association Advisory Committee

AGENCY: Office of the Comptroller of the Currency (OCC), Department of the Treasury.

ACTION: Notice of Federal Advisory Committee meeting.

SUMMARY: The OCC announces a meeting of the Mutual Savings Association Advisory Committee (MSAAC).

DATES: A public meeting of the MSAAC will be held on Tuesday, May 9, 2017, beginning at 8:30 a.m. Eastern Daylight Time (EDT).

ADDRESSES: The OCC will hold the May 9, 2017 meeting of the MSAAC at the OCC's offices at 400 7th Street SW., Washington, DC 20219.

FOR FURTHER INFORMATION CONTACT: Michael R. Brickman, Deputy Comptroller for Thrift Supervision, (202) 649–5420, Office of the Comptroller of the Currency, Washington, DC 20219.

SUPPLEMENTARY INFORMATION: By this notice, the OCC is announcing that the MSAAC will convene a meeting on Tuesday, May 9, 2017, at the OCC's offices at 400 7th Street SW., Washington, DC 20219. The meeting is open to the public and will begin at 8:30 a.m. EDT. The purpose of the meeting is for the MSAAC to advise the OCC on regulatory changes or other steps the OCC may be able to take to ensure the continued health and viability of mutual savings associations and other issues of concern to existing mutual savings associations. The agenda includes a discussion of current topics of interest to the industry.

Members of the public may submit written statements to the MSAAC. The OCC must receive written statements no later than 5:00 p.m. EDT on Tuesday, May 2, 2017. Members of the public may submit written statements to *MSAAC@occ.treas.gov* or by mailing them to Michael R. Brickman, Designated Federal Officer, Mutual Savings Association Advisory Committee, Office of the Comptroller of the Currency, 400 7th Street SW., Washington, DC 20219.

Members of the public who plan to attend the meeting should contact the OCC by 5:00 p.m. EDT on Tuesday, May 2, 2017, to inform the OCC of their desire to attend the meeting and to provide information that will be required to facilitate entry into the meeting. Members of the public may contact the OCC via email at *MSAAC@OCC.treas.gov* or by telephone at (202) 649–5420. Members of the public who are deaf or hard of hearing should call (202) 649–5597 (TTY) by 5:00 p.m. EDT Tuesday, May 2, 2017, to arrange auxiliary aids such as sign language interpretation for this meeting.

Attendees should provide their full name, email address, and organization, if any. For security reasons, attendees will be subject to security screening procedures and must present a valid government-issued identification to enter the building.

Dated: April 21, 2017.

Thomas J. Curry,

Comptroller of the Currency.

[FR Doc. 2017–08516 Filed 4–26–17; 8:45 am]

BILLING CODE 4810–33–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, 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. Currently, the IRS is soliciting comments concerning affordable care act notice of patient protection.

DATES: Written comments should be received on or before June 26, 2017 to be assured of consideration.

ADDRESSES: Direct all written comments to Laurie Brimmer, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW., Washington, DC 20224. Requests for additional information or copies of the regulations should be directed to Sara Covington, at Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW., Washington, DC 20224, or through the internet, at *Sara.L.Covington@irs.gov.*

Title: Disclosure Requirement For Patient Protections under the Affordable Care Act.

OMB Number: 1545–2181.

Regulation Project Number: T.D. 9744.

Abstract: Section 2719A of the Public Health Service Act (PHS Act), incorporated into Code section 9815 by section 1563(f) of the Patient Protection and Affordable Care Act, Public Law 111–148, requires that a group health plan or a health insurance issuer requiring or allowing for the designation of a primary care provider provide notice to participants of the right to designate a primary care provider (including a pediatrician for a child) and of the right to obtain access to obstetrical or gynecological services without referral from a primary care provider.

Current Actions: Changes in the burden estimates.

Type of Review: Revision of a currently approved collection.

Affected Public: Business or other for-profit; not-for profit organizations.

Estimated Number of Respondents: 41,000.

Estimated Number of Responses: 693,007.

Estimated Total Annual Burden Hours: 5,173.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law.

Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the 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 of the collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 20, 2017.

Laurie Brimmer,

IRS Senior Tax Analyst.

[FR Doc. 2017–08523 Filed 4–26–17; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Mortgage Interest Statement

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, 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. Currently, the IRS is soliciting comments concerning Mortgage Interest Statement.

DATES: Written comments should be received on or before June 26, 2017 to be assured of consideration.

ADDRESSES: Direct all written comments to Laurie E. Brimmer, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW., Washington, DC 20224. Requests for additional information or copies of the form and instructions should be directed to Martha R. Brinson, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW., Washington, DC 20224, or through the Internet at *Martha.R.Brinson@irs.gov.*

SUPPLEMENTARY INFORMATION:

Title: Mortgage Interest Statement.

OMB Number: 1545–0901.

Form Number: Form 1098.

Abstract: Form 1098 is used to report $600 or more of mortgage interest received from an individual in the course of the mortgagor's trade or business.

Current Actions.

Box 2 was added to report ''Outstanding mortgage principal''.

Box 3 was added to report ''Mortgage origination date''.

We added new text in box 7 reflecting that if the box is checked, this is the same address as the property securing the mortgage and that this is the same address as the Payer/Borrower.

Box 8 was added to report the ''Address of property securing mortgage''.

Box 9 was added for ''reporting the description of a property'' without a street address. Reporting requirement will be addressed in the separate Instructions for Form 1098,

Box 10 was added to report the ''Number of mortgaged properties'', if more than 1 address on this form and box 11 for ''Other''.

This form is also being submitted for renewal purposes only.

Type of Review: Revision of a currently approved collection.

Affected Public: Businesses or other for profits.

Estimated Number of Annual Responses: 81,132,333.

Estimated Time Per Response: 13 minutes.

Estimated Total Annual Burden Hours: 17,849,114.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the 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 of the collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 24, 2017.

Laurie E. Brimmer,

Senior Tax Analyst.

[FR Doc. 2017–08517 Filed 4–26–17; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, 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. Currently, the IRS is soliciting comments concerning consolidated and controlled groups, intercompany transactions and related rules.

DATES: Written comments should be received on or before June 26, 2017 to be assured of consideration.

ADDRESSES: Direct all written comments to Laurie Brimmer, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW., Washington, DC 20224.

SUPPLEMENTARY INFORMATION:

Title: CO–11–91, Consolidated Groups and Controlled Groups—Intercompany Transactions and Related Rules, and CO–24–95, Consolidated Groups—Intercompany Transactions and Related Rules.

OMB Number: 1545–1433.

Regulation Project Number: CO–11–91 (TD 8597) and CO–24–95 (TD 8660).

Abstract: The regulations require common parents that make elections under regulation section 1.1502–13 to provide certain information. The information will be used to identify and assure that the amount, location, timing, and attributes of intercompany transactions and corresponding items are properly maintained.

Current Actions: There is no change to this existing collection.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 2,200.

Estimated Average Time per Respondent: 29 minutes.

Estimate Total Annual Burden Hours: 1,050 hours.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the 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 of the collection of information; (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 respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 20, 2017.

Laurie Brimmer,

Senior Tax Analyst.

[FR Doc. 2017–08518 Filed 4–26–17; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Authorization Agreement for Preauthorized Payment

AGENCY: Departmental Offices, U.S. Department of the Treasury

ACTION: Notice.

SUMMARY: The Department of the Treasury will submit the following information collection request(s) to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. The public is invited to submit comments on the collection(s) listed below.

DATES: Comments should be received on or before May 30, 2017 to be assured of consideration.

ADDRESSES: Send comments regarding the burden estimate, or any other aspect of the information collection, including suggestions for reducing the burden, to (1) Office of Information and Regulatory Affairs, Office of Management and Budget, Attention: Desk Officer for Treasury, New Executive Office Building, Room 10235, Washington, DC 20503, or email at *OIRA_Submission@OMB.EOP.gov* and (2) Treasury PRA Clearance Officer, 1750 Pennsylvania Ave. NW., Suite 8142, Washington, DC 20220, or email at *PRA@treasury.gov.*

FOR FURTHER INFORMATION CONTACT: Copies of the submissions may be obtained by emailing *PRA@treasury.gov,* calling (202) 622–0489, or viewing the entire information collection request at *www.reginfo.gov.*

SUPPLEMENTARY INFORMATION:

Bureau of the Fiscal Service (FS)

Title: Authorization Agreement for Preauthorized Payment.

OMB Control Number: 1530–0015.

Type of Review: Extension without change of a currently approved collection.

Abstract: Preauthorized payment is used by remitters (individuals and corporations) to authorize electronic funds transfers from the bank accounts maintained at financial institutions for government agencies to collect monies.

Form: SF–5510.

Affected Public: Businesses or other for-profits, Individuals and households.

Estimated Total Annual Burden Hours: 25,000.

Authority: 44 U.S.C. 3501 *et seq.*

Dated: April 24, 2017.

Spencer W. Clark,

Treasury PRA Clearance Officer.

[FR Doc. 2017–08546 Filed 4–26–17; 8:45 am]

BILLING CODE 4810–AS–P

DEPARTMENT OF THE TREASURY

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Multiple Alcohol and Tobacco Tax and Trade Bureau Information Collection Requests

AGENCY: Departmental Offices, U.S. Department of the Treasury.

ACTION: Notice.

SUMMARY: The Department of the Treasury will submit the following information collection request(s) to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. The public is invited to submit comments on the collection(s) listed below.

DATES: Comments should be received on or before May 30, 2017 to be assured of consideration.

ADDRESSES: Send comments regarding the burden estimate, or any other aspect of the information collection, including suggestions for reducing the burden, to (1) Office of Information and Regulatory Affairs, Office of Management and Budget, Attention: Desk Officer for Treasury, New Executive Office Building, Room 10235, Washington, DC 20503, or email at *OIRA_Submission@OMB.EOP.gov* and (2) Treasury PRA Clearance Officer, 1750 Pennsylvania Ave. NW., Suite 8142, Washington, DC 20220, or email at *PRA@treasury.gov.*

FOR FURTHER INFORMATION CONTACT: Copies of the submissions may be obtained by emailing *PRA@treasury.gov,* calling (202) 622–0489, or viewing the entire information collection request at *www.reginfo.gov.*

SUPPLEMENTARY INFORMATION:

Alcohol and Tobacco Tax and Trade Bureau (TTB)

Title: Distilled Spirits Plants—Records and Monthly Reports of Processing Operations, TTB REC 5110/03.

OMB Control Number: 1513–0041.

Type of Review: Revision of a currently approved collection.

Abstract: Distilled spirits, other than those used for certain authorized nonbeverage purposes, are taxed at a rate of $13.50 a proof gallon. Pursuant to 26 U.S.C. 5207, the proprietor of a distilled spirits plant must maintain records of production, storage, denaturation, and processing activities and submit reports covering those operations. The TTB regulations in 27 CFR part 19 require distilled spirit proprietors to keep records regarding processing operations, and processing records must also be maintained for any wholesale liquor dealer operations or taxpaid storeroom operations conducted by a proprietor. In addition, the TTB regulations at 27 CFR 19.632 require proprietors to file a monthly report of processing operations on TTB F 5110.28. The information collected accounts for the processing of distilled spirits, and TTB uses the information to monitor proprietor activities to ensure appropriate taxes are paid. The information is also aggregated and

provided publicly through statistical reports.

Form: TTB F 5110.28.

Affected Public: Businesses or other for-profits.

Estimated Total Annual Burden Hours: 54,624.

Title: Principal Place of Business Address and Place of Production Coding on Beer and Malt Beverage Labels, TTB REC 5130/5.

OMB Control Number: 1513–0085.

Type of Review: Revision of a currently approved collection.

Abstract: Under the authority of the Internal Revenue Code at 26 U.S.C. 5412 and the Federal Alcohol Administration Act at 27 U.S.C. 205(e), the TTB regulations require the name and address of the brewer to appear on labels of kegs, bottles, and cans of domestic beer. In the case of a brewer that operates multiple breweries, the TTB regulations allow the brewer to label their beer containers with their ''principal place of business,'' provided that the brewer codes each beer container to indicate the actual place of production. This option allows multi-plant brewers to use an identical, universal label at all of their breweries.

Form: None.

Affected Public: Businesses or other for-profits.

Estimated Total Annual Burden Hours: 1.

Title: Application for Registration for Tax-Free Firearms and Ammunition Transactions Under 26 U.S.C. 4221.

OMB Control Number: 1513–0095.

Type of Review: Revision of a currently approved collection.

Abstract: The Internal Revenue Code at 26 U.S.C. 4181 imposes a Federal excise tax on the sale of pistols and revolvers, other firearms, shells and cartridges (ammunition) sold by manufacturers, producers, and importers. Under 26 U.S.C. 4221, no tax is imposed on certain sales of firearms and ammunition, provided that the seller and purchaser of the articles (with certain exceptions) are registered as required by 26 U.S.C. 4222. Section 4222 further provides that the Secretary of the Treasury may prescribe regulations regarding the manner, forms, terms, and conditions of registration. The TTB regulation at 27 CFR 53.140 prescribes the use of TTB F 5300.28 (or its electronic equivalent) as the application to obtain an approved Certificate of Registry to sell or purchase firearms and ammunition tax free. TTB uses the form to determine if the respondent is qualified to engage in tax-free sales. In addition, registrants may make certain amendments to the information provided on the form by letterhead notice.

Form: TTB F 5300.28.

Affected Public: Businesses or other for-profits.

Estimated Total Annual Burden Hours: 300.

Authority: 44 U.S.C. 3501 et seq.

Dated: April 24, 2017.

Spencer W. Clark,

Treasury PRA Clearance Officer.

[FR Doc. 2017–08545 Filed 4–26–17; 8:45 am]

BILLING CODE 4810–31–P

DEPARTMENT OF THE TREASURY

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Multiple Internal Revenue Service Information Collection Requests

AGENCY: Departmental Offices, U.S. Department of the Treasury.

ACTION: Notice.

SUMMARY: The Department of the Treasury will submit the following information collection request(s) to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. The public is invited to submit comments on the collection(s) listed below.

DATES: Comments should be received on or before May 30, 2017 to be assured of consideration.

ADDRESSES: Send comments regarding the burden estimate, or any other aspect of the information collection, including suggestions for reducing the burden, to (1) Office of Information and Regulatory Affairs, Office of Management and Budget, Attention: Desk Officer for Treasury, New Executive Office Building, Room 10235, Washington, DC 20503, or email at *OIRA_Submission@OMB.EOP.gov* and (2) Treasury PRA Clearance Officer, 1750 Pennsylvania Ave. NW., Suite 8142, Washington, DC 20220, or email at *PRA@treasury.gov.*

FOR FURTHER INFORMATION CONTACT: Copies of the submissions may be obtained by emailing *PRA@treasury.gov,* calling (202) 622–0489, or viewing the entire information collection request at *www.reginfo.gov.*

SUPPLEMENTARY INFORMATION:

Internal Revenue Service (IRS)

Title: REG–209020–86 Foreign Tax Credit: Notification of Foreign Tax Redeterminations.

OMB Control Number: 1545–1056.

Type of Review: Extension without change of a currently approved collection.

Abstract: Section 905(c) requires that a taxpayer notify the Internal Revenue Service of a change in the taxpayer's foreign income tax liability that may affect its foreign tax credit. Regulation section 1.905–4T provides rules concerning the time, manner, and contents of such notification. Should the taxpayer fail to notify the IRS, penalties under section 6689 may be imposed. Respondents are U.S. taxpayers that claim a foreign tax credit under section 901, 902, or 960.

Form: None.

Affected Public: Individuals or Households.

Estimated Total Annual Burden Hours: 54,000.

Title: REG–246256–96 (Final TD 8978) Excise Taxes on Excess Benefit Transactions.

OMB Control Number: 1545–1623.

Type of Review: Extension without change of a currently approved collection.

Abstract: Section 4958 of the Internal Revenue Code imposes excise taxes on transactions between certain tax exempt organizations and persons in a position to exercise substantial influence over the affairs of the organization, where the transactions are at greater than fair market value. These regulations (26 CFR Section 53.4958 6(a)(2), 53.4958 6(a)(3), 53.4958 6(d)(2), and 53.4958 6(d)(3)) will clarify certain definitions rules in section 4958.

Form: None.

Affected Public: Businesses or other for-profits.

Estimated Total Annual Burden Hours: 910,083.

Title: Rev. Proc. 2007–48 Rotable Spare Parts Safe Harbor Method.

OMB Control Number: 1545–2070.

Type of Review: Revision of a currently approved collection.

Abstract: The information which the agency is requesting to collect will support a taxpayer's claim for eligibility to use the safe harbor method of accounting for rotable spare parts provided in the proposed revenue procedures. The information will be submitted as a supporting schedule for the Form 3115, Application for Change in Accounting Method.

Form: 3115.

Affected Public: Businesses or other for-profits.

Estimated Total Annual Burden Hours: 29,169.

Authority: 44 U.S.C. 3501 *et seq.*

Dated: April 24, 2017.

Spencer W. Clark,

Treasury PRA Clearance Officer.

[FR Doc. 2017–08547 Filed 4–26–17; 8:45 am]

BILLING CODE 4830–01–P

FEDERAL REGISTER

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Part II

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 218

Taking and Importing Marine Mammals: Taking Marine Mammals Incidental to U.S. Navy Operations of Surveillance Towed Array Sensor System Low Frequency Active Sonar; Proposed Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 160920860–7368–01]

RIN 0648–BG35

Taking and Importing Marine Mammals: Taking Marine Mammals Incidental to U.S. Navy Operations of Surveillance Towed Array Sensor System Low Frequency Active Sonar

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, by harassment, incidental to conducting operations of Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA) sonar in areas of the world's oceans (with the exception of Arctic and Antarctic waters and certain geographic restrictions), from August 15, 2017, through August 14, 2022. The Navy's activities are considered military readiness activities pursuant to the Marine Mammal Protection Act (MMPA), as amended by the National Defense Authorization Act for Fiscal Year 2004 (FY 2004 NDAA). Pursuant to the MMPA, NMFS is requesting comments on its proposal to issue regulations to govern the incidental take of marine mammals by Level B harassment during the specified activity.

DATES: Comments and information must be received no later than May 30, 2017.

ADDRESSES: You may submit comments on this document, identified by NOAA–HQ–2017–0037, by either of the following methods:

Electronic Submission: Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *www.regulations.gov/#!docketDetail;D=NOAA-HQ-2017-0037*, click the ''Comment Now!'' icon, complete the required fields, and enter or attach your comments.

Mail: Comments should be addressed to Jolie Harrison, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service. Physical comments should be sent to 1315 East-West Highway, Silver Spring, MD 20910.

Instructions: NMFS is not responsible for comments sent by any other method, to any other address or individual, and may not consider comments received after the end of the comment period. Comments received electronically, including all attachments, must not exceed a 25-megabyte file size. Attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF formats only. To help NMFS process and review comments more efficiently, please use only one method to submit comments. All comments received are a part of the public record and will generally be posted to *www.regulations.gov* and *www.nmfs.noaa.gov/pr/permits/incidental/military* 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.

FOR FURTHER INFORMATION CONTACT: Dale Youngkin, Office of Protected Resources, NMFS, (301) 427–8401. Electronic copies of the application and supporting documents, as well as a list of the references cited in this document, may be obtained by visiting the Internet at: *www.nmfs.noaa.gov/pr/permits/incidental/military.htm*. In case of problems accessing these documents, please call the contact listed above.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals in a specified geographical region for a period of up to five years, provided that certain findings are made and the necessary prescriptions are established.

The incidental taking of marine mammals shall be allowed if NMFS (through authority delegated by the Secretary) finds that the total taking by the specified activity during the specified time period will (1) have a negligible impact on the species or stock(s) and (2) not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). Further, the permissible methods of taking and other means of effecting the least practicable adverse impact on the species or stock and its habitat (*i.e.,* mitigation) must be prescribed. Requirements pertaining to the monitoring and reporting of such taking must also be set forth.

The allowance of incidental taking under section 101(a)(5)(A) requires promulgation of activity specific regulations. Subsequently, a Letter (or Letters) of Authorization (LOA) may be issued as governed by the regulations, provided that the level of taking will be consistent with the findings made for the total taking allowable under the specific regulations. The promulgation of regulations (with their associated prescribed mitigation, monitoring, and reporting) requires notice and opportunity for public comment.

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 for Fiscal Year 2004 (FY 2004 NDAA) (Pub. L. 108–136) removed the ''small numbers'' and ''specified geographical region'' limitations indicated above 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). In addition, the FY 2004 NDAA amended the MMPA as it relates to military readiness activities and the Incidental Take Authorization (ITA) 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.

Summary of Request

On August 26, 2016, NMFS received an application from the Navy requesting authorization for the take of individuals of 104 currently classified species or stocks of marine mammals (15 species of mysticete (baleen) whales, 60 species of odontocete (toothed) whales, and 29 species of pinnipeds (seals and sea lions)), by harassment, incidental to the use of SURTASS LFA sonar on a maximum of four U.S. Naval ships for routine training, testing, and military operations, hereafter called activities, in various areas of the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea from August 15,

2017 through August 14, 2022. These activities are classified as military readiness activities. The Navy states, and NMFS concurs, that these military readiness activities may incidentally take marine mammals present within the Navy's operation areas by exposing them to SURTASS LFA sonar at levels that constitute Level B harassment as defined above. The Navy requests authorization to take individuals of the 104 currently classified species or stocks of marine mammals by Level B Harassment. This rule may also cover the authorization of additional associated stocks of marine mammals not listed here, should one or more of the stocks identified in this rule be formally separated into multiple stocks, provided NMFS is able to confirm the necessary findings for the newly identified stocks. As discussed later in this document, takes due to SURTASS LFA sonar will be limited to Level B behavioral harassment. No takes by Level A harassment will be authorized as Level A harassment will be avoided through the implementation of the Navy's proposed mitigation measures. In previous rulemakings, NMFS authorized small numbers of Level A takes out of an abundance of caution even though Level A takes were not anticipated. However, there have been no Level A takes resulting from the past 14 years of SURTASS LFA sonar activities under previous rules. Additionally, the criteria and thresholds for assessing Level A harassment have been modified since prior rules. Under the new metrics, the potential for injury zone has been substantially reduced. Therefore, due to the small injury zones and the fact that mitigation measures would ensure that marine mammals would not receive levels associated with injury, the Navy has not requested authorization for Level A harassment takes, and NMFS is not proposing to authorize any takes by Level A harassment.

This is NMFS' fourth rulemaking for SURTASS LFA sonar activities under the MMPA. NMFS' current five-year regulations governing incidental takings incidental to SURTASS LFA sonar activities and the related Letters of Authorizations (LOA) expire on August 15, 2017. NMFS published the first SURTASS LFA sonar rule on July 16, 2002 (67 FR 46712), effective from August 2002 through August 2007. The second rule was published on August 21, 2007 (72 FR 46846), effective from August 16, 2007, through August 15, 2012. The third rule was published on August 20, 2012 (77 FR 50290), and is effective through August 14, 2017. For this proposed rulemaking, the Navy proposes to conduct the same types of sonar activities as they have conducted over the past 14 years with the following exception: The Navy proposes to transmit a maximum number of 255 hours of LFA sonar per vessel per year, as opposed to the previously authorized 432 hours of LFA sonar per vessel per year. Based on historical operating parameters, the average duty cycle (*i.e.,* the ratio of sound ''on'' time to total time) for SURTASS LFA sonar is normally 7.5 to 10 percent and the duty cycle is not expected to exceed 20 percent.

Description of the Specified Activities

Overview

The proposed action is Navy's continued employment of up to four SURTASS LFA sonar systems in the world's non-polar oceans, which is classified as a military readiness activity, from August 2017 to August 2022. Potential activities could occur in the Pacific, Atlantic, and Indian Oceans, and the Mediterranean Sea. The Navy will not operate SURTASS LFA sonar in Arctic and Antarctic waters. Additional geographic restrictions include maintaining SURTASS LFA sonar received levels below 180 dB re 1 μPa (root-mean-square (rms)) within 12 nautical miles (nmi) (22 kilometers (km)) of any land, and within the boundaries of designated Offshore Biologically Important Areas (OBIAs) during their effective periods (see below for more OBIA details).

Purpose and Background

The Navy's primary mission is to maintain, train, equip, and operate combat-ready naval forces capable of accomplishing American strategic objectives, deterring maritime aggression, and assuring freedom of navigation in ocean areas. This mission is mandated by Federal law in Section 5062 of Title 10 of the United States Code, which directs the Secretary of the Navy and Chief of Naval Operations (CNO) to ensure the readiness of the U.S. naval forces.

The Secretary of the Navy and the CNO have established that anti-submarine warfare (ASW) is a critical capability for achieving the Navy's mission, and it requires unfettered access to both the high seas and littoral environments to be prepared for all potential threats by maintaining ASW core competency. The Navy is challenged by the increased difficulty in locating undersea threats solely by using passive acoustic technologies due to the advancement and use of quieting technologies in diesel-electric and nuclear submarines. At the same time as the distance at which submarine threats can be detected decreases due to quieting technologies, improvements in torpedo and missile design have extended the effective range of these weapons.

One of the ways the Navy has addressed the changing requirements for ASW readiness was by developing SURTASS LFA sonar, which is able to reliably detect quieter and harder-to-find submarines at long range before these vessels can get within their effective weapons range to launch against their targets. SURTASS LFA sonar systems have a passive component (SURTASS), which is a towed line array of hydrophones used to detect sound emitted or reflected from submerged targets, and an active component (LFA), which is comprised of a set of acoustic transmitting elements. The active component detects objects by creating a sound pulse, or ''ping'' that is transmitted through the water and reflects off the target, returning in the form of an echo similar to echolocation used by some marine mammals to locate prey and navigate. SURTASS LFA sonar systems are long-range sensors that operate in the low-frequency (LF) band (*i.e.,* 100–500 Hertz (Hz)). Because LF sound travels in seawater for greater distances than higher frequency sound, the SURTASS LFA sonar system would meet the need for improved detection and tracking of new-generation submarines at a longer range and would maximize the opportunity for U.S. armed forces to safely react to, and defend against, potential submarine threats while remaining a safe distance beyond a submarine's effective weapons range. Thus, the active acoustic component in the SURTASS LFA sonar is an important augmentation to its passive and tactical systems, as its long-range detection capabilities can effectively counter the threat to the Navy and national security interests posed by quiet, diesel submarines.

Dates and Duration

Due to uncertainties in the world's political climate, a detailed account of future operating locations and conditions for SURTASS LFA sonar use over the next five years cannot be predicted. However, for analytical purposes, a nominal annual deployment schedule and operational concept were developed based on actual SURTASS LFA sonar activities conducted since January 2003 and projected Fleet requirements (See Table 1).

TABLE 1—EXAMPLE ANNUAL DEPLOYMENT SCHEDULE FOR ONE SURVEILLANCE VESSEL USING SURTASS LFA SONAR

On mission	Days	Off mission	Days
Transit	54	In-Port Upkeep	40
Active Activities (Up to 255 transmission hours based on a nominal 7.5% duty cycle).	240	Regular Overhaul	31
Total Days on Mission	294	Total Days off Mission	71

Annually, each vessel is expected to spend approximately 54 days in transit and 294 days at sea conducting military readiness activities, which includes 240 days of active operations (amounting to 255 transmission hours based on a 7.5% duty cycle). Between missions, an estimated total of 71 days per year will be spent in port for upkeep and repair to maintain both the material condition of the vessel and its systems. The actual number and length of the individual missions within the 240 days are difficult to predict, but the maximum number of actual transmission hours per vessel per year will not exceed 255 hours.

As noted above, this would be the fourth continuous such authorization for the Navy's SURTASS LFA sonar activities. The Navy's current rule and LOA expire after August 14, 2017. Therefore, the Navy has requested MMPA rulemaking and will request annual LOAs for its SURTASS LFA sonar activities effective from August 15, 2017 through August 14, 2022, to take marine mammals incidental to the activities of up to four SURTASS LFA sonar systems. Subsequent LOA applications would be submitted annually throughout the remaining years of the new rule.

Potential SURTASS LFA Sonar Operational Areas

Figure 1 depicts the potential areas of activities for SURTASS LFA sonar. In areas within 12 nmi from any shorelines (coastal exclusion areas) and in areas identified as OBIAs, SURTASS LFA sonar would be operated such that received levels of LFA sonar are below 180 dB re 1 µPa rms sound pressure level (SPL). This restriction would be observed year-round for coastal exclusion areas and during periods of biological importance for OBIAs, but these areas are not depicted in Figure 1 as these areas are not visible at the map scale. Based on the Navy's current operational requirements, potential activities for SURTASS LFA sonar vessels from August 2017 through August 2022 would include areas located in the Pacific, Atlantic, and Indian Oceans as well as the Mediterranean Sea.

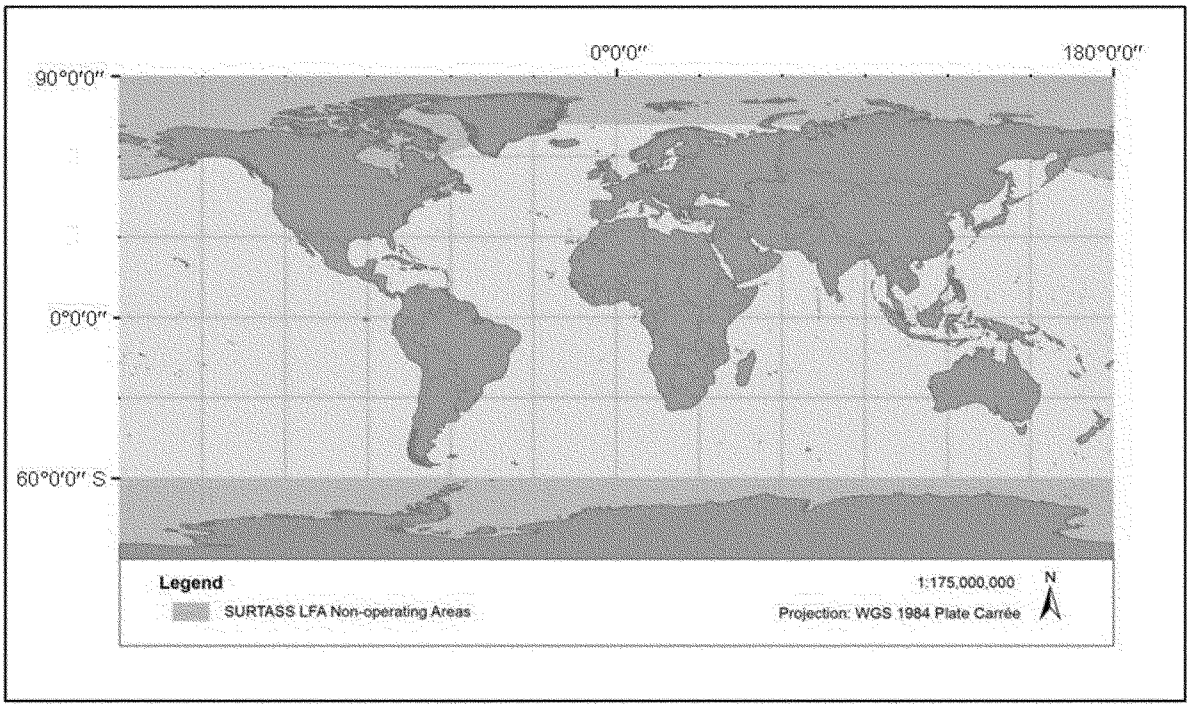

Figure 1. Potential Areas of Operation for SURTASS LFA sonar (DoN, 2011).

The Navy will not operate SURTASS LFA sonar pursuant to this rule in polar regions (*i.e.,* Arctic and Antarctic waters) of the world (see shaded areas in Figure 1). The Arctic Ocean, the Bering Sea (including Bristol Bay and Norton Sound), portions of the Norwegian, Greenland, and Barents Seas north of 72° North (N) latitude, plus Baffin Bay, Hudson Bay, and the Gulf of St. Lawrence would be non-operational areas for SURTASS LFA sonar. In the

Antarctic, the Navy will not conduct SURTASS LFA activities in areas south of 60° South (S) latitude. The Navy has excluded polar waters from operational planning because of the inherent inclement weather conditions and the navigational and operational (equipment) danger that icebergs pose to SURTASS LFA sonar vessels.

The Navy must anticipate, or predict, where they have to operate in the next five years for the MMPA rulemaking. Naval forces are presently operating in several areas strategic to U.S. national and international interests. National security needs may dictate that many of these operational areas will be close to ports and choke points, such as entrances to straits, channels, and canals. It is anticipated that many future naval conflicts are likely to occur within littoral or coastal areas. However, it is infeasible for the Navy to analyze all potential global mission areas for all species and stocks for all seasons. Instead, the Navy projects where it intends to use SURTASS LFA sonar for the next five-year authorization period based on today's political climate and provides NMFS with take estimates for marine mammal stocks in the proposed areas of activity. NMFS believes that this provides sufficient coverage for worldwide SURTASS LFA sonar activities, as specific take numbers are requested on an annual basis in applications for LOAs, subject to an annual cap of 12 percent per stock.

For this fourth rulemaking, the Navy modeled and analyzed 26 representative mission areas in the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea to represent the acoustic regimes and marine mammal species/stocks that may be encountered during worldwide SURTASS LFA sonar activities (see Table 2). They are comprised of the following modeled areas: East of Japan; north Philippine Sea; west Philippine Sea; offshore Guam; Sea of Japan; East China Sea; South China Sea; Offshore Japan (two locations: 25° to 40° N and 10° to 25° N); Hawaii North; Hawaii South; Offshore Southern California; western north Atlantic; eastern North Atlantic; Mediterranean Sea; Arabian Sea; Andaman Sea; Panama Canal; northeast Australia; northwest Australia; northeast of Japan; southern Gulf of Alaska; southern Norwegian Basin (between Iceland and Norway); western North Atlantic (off of Virginia/Maryland); Labrador Sea; and Sea of Okhotsk. Since the Navy cannot forecast the location of its operations, annual requests will be submitted to NMFS that will include specific mission areas and modeling locations for each year's activities. For more details of the impact analysis, see Appendix B in the DSEIS/SOEIS.

TABLE 2—POTENTIAL SURTASS LFA SONAR ACTIVITY AREAS THAT THE NAVY MODELED FOR THE DSEIS/OEIS (DON, 2016a) AND THE MMPA RULEMAKING/LOA APPLICATION

Modeled site	Location (latitude/longitude of center of modeling area)	Modeled site	Location (latitude/longitude of center of modeling area)
East of Japan	38° N., 148° E.	Eastern North Atlantic	56.4° N., 10° W.
North Philippine Sea	29° N., 136° E.	Mediterranean Sea	39° N., 6° E.
West Philippine Sea	22° N., 124° E.	Arabian Sea	14°N., 65° E.
Offshore Guam (Mariana Islands Range Complex, outside Mariana Trench).	11° N., 145° E.	Andaman Sea	7.5° N., 96° E.
Sea of Japan	39° N., 132° E.	Panama Canal	5° N., 81° W.
East China Sea	26° N., 125° E.	Northeast Australia	23° S., 155° E.
South China Sea	14° N., 114° E.	Northwest Australia	18° S., 110° E.
Offshore Japan 25° to 40° N	30° N., 165° E.	Northeast of Japan	52° N., 163° E.
Offshore Japan 10° to 25° N	15° N., 165° E.	Southern Gulf of Alaska	51° N., 150° W.
Hawai'i North	25° N., 158° W.	Southern Norwegian Basin (between Iceland and Norway).	65° N., 0°
Hawaii South	19.5° N., 158.5° W.	Western North Atlantic (off of Virginia/Maryland)	39.6° N., 71.6° W.
Offshore Southern California	32° N., 120° W.	Labrador Sea	57° N., 50° W.
Western North Atlantic (off Florida)	29° N., 76° W.	Sea of Okhotsk	51° N., 150° E.

The use of the SURTASS LFA sonar system during at-sea activities would result in acoustic stimuli from the generation of sound or pressure waves in the water at or above levels that NMFS has determined would result in take of marine mammals under the MMPA. This is the principal means of marine mammal taking associated with these military readiness activities and the Navy has requested authorization to take marine mammals by Level B harassment. At no point are there expected to be more than four systems in use, and thus this proposed rule analyzes the impacts on marine mammals due to the deployment of up to four SURTASS LFA sonar systems for a five-year period between August 2017 and August 2022.

In addition to the use of active acoustic sources, the Navy's activities include the operation and movement of vessels. This document also analyzes the effects of this aspect of the activities. However, NMFS does not anticipate takes of marine mammals to result from ship strikes from any of the four SURTASS LFA vessels because each vessel moves at a relatively slow speed, especially when towing the SURTASS and LFA sonar systems, and for a relatively short period of time. Combined with the use of mitigation measures as noted below, it is likely that any marine mammal would be able to avoid the surveillance vessels.

Detailed Description of the Specified Activities

Description of SURTASS LFA Sonar

SONAR is an acronym for Sound Navigation and Ranging, and its definition includes any system (biological or mechanical) that uses underwater sound, or acoustics, for detection, monitoring, and/or communications. Active sonar is the transmission of sound energy for the purpose of sensing the environment by interpreting features of received signals. Active sonar detects objects by creating a sound pulse, or ''ping'' that is transmitted through the water and reflects off the target, returning in the form of an echo. Passive sonar detects

the transmission of sound waves created by an object.

As mentioned previously, the SURTASS LFA sonar system is a long-range, all-weather LF sonar (operating between 100 and 500 Hertz (Hz)) system that has both active and passive components. LFA, the active system component (which allows for the detection of an object that is not generating noise), is comprised of source elements (called projectors) suspended vertically on a cable beneath the surveillance vessel. The projectors produce an active sound pulse by converting electrical energy to mechanical energy by setting up vibrations or pressure disturbances within the water to produce a ping. The Navy uses LFA as an augmentation to the passive SURTASS operations when passive system performance is inadequate. SURTASS, the passive part of the system, uses hydrophones (*i.e.,* underwater microphones) to detect sound emitted or reflected from submerged targets, such as submarines. The SURTASS hydrophones are mounted on a horizontal line array that is towed behind the surveillance vessel. The Navy processes and evaluates the returning signals or echoes, which are usually below background or ambient sound level, to identify and classify potential underwater targets.

LFA Active Component

The active component of the SURTASS LFA sonar system consists of up to 18 projectors suspended beneath the surveillance vessel in a vertical line array. The SURTASS LFA sonar projectors transmit in the low-frequency band (between 100 and 500 Hz). The source level of an individual projector in the SURTASS LFA sonar array is approximately 215 dB re: 1 µPa at 1 m or less (Sound pressure is the sound force per unit area and is usually measured in micropascals (µPa), where one Pascal (Pa) is the pressure resulting from a force of one newton exerted over an area of one square meter. The commonly used reference pressure level in underwater acoustics is 1 µPa at 1 m, and the units for source level are decibels (dB) re: 1 µPa at 1 m). Because of the physics involved in acoustic beamforming (*i.e.,* a method of mapping noise sources by differentiating sound levels based upon the direction from which they originate) and sound transmission loss processes, the SURTASS LFA sonar array cannot have a SPL higher than the SPL of an individual projector.

The SURTASS LFA sonar acoustic transmission is an omnidirectional beam (a full 360 degrees (°)) in the horizontal plane. The LFA sonar system also has a narrow vertical beam that the vessel's crew can steer above or below the horizontal plane. The typical SURTASS LFA sonar signal is not a constant tone, but rather a transmission of various signal types that vary in frequency and duration (including continuous wave (CW) and frequency-modulated (FM) signals). A complete sequence of sound transmissions, also referred to by the Navy as a ''ping'' or a wavetrain, can be as short as six seconds (sec) or last as long as 100 sec, with an average length of 60 sec. Within each ping, the duration of any continuous frequency sound transmission is no longer than 10 sec and the time between pings is typically from six to 15 minutes (min). Based on the Navy's historical operating parameters, the average duty cycle (*i.e.,* the ratio of sound ''on'' time to total time) for LFA sonar is normally 7.5 to 10 percent and the duty cycle is not expected to exceed 20 percent.

Compact LFA Active Component

In addition to the LFA sonar system deployed on the USNS IMPECCABLE, the Navy developed a compact LFA (CLFA) sonar system now deployed on its three smaller surveillance vessels (*i.e.,* the USNS ABLE, EFFECTIVE, and VICTORIOUS). In the application, the Navy indicates that the operational characteristics of the active component CLFA sonar are comparable to the existing LFA systems and that the potential impacts from CLFA will be similar to the effects from the existing LFA sonar system. The CLFA sonar system consists of smaller projectors that weigh 142,000 lbs (64,410 kilograms (kg)), which is 182,000 lbs (82,554 kg) less that the mission weight of the LFA projectors on the USNS IMPECCABLE. The CLFA sonar system also consists of up to 18 projectors suspended beneath the surveillance vessel in a vertical line array and the CLFA sonar projectors transmit in the low-frequency band (also between 100 and 500 Hz) with the same duty cycle as described for LFA sonar. Similar to the active component of the LFA sonar system, the source level of an individual projector in the CLFA sonar array is approximately 215 dB re: 1 µPa or less.

For the analysis in this rulemaking, NMFS will use the term LFA to refer to both the LFA sonar system and/or the CLFA sonar system, unless otherwise specified.

SURTASS Passive Component

The passive component of the SURTASS LFA sonar system consists of a SURTASS Twin-line (TL–29A) horizontal line array mounted with hydrophones. The Y-shaped array is 1,000 ft (305 m) in length and has an operational depth of 500 to 1,500 ft (152.4 to 457.2 m). The SURTASS LFA sonar vessel typically maintains a speed of at least 3.4 mph (5.6 km/hr; 3 knots (kts)) to tow the array astern of the vessel in the correct horizontal configuration.

High-Frequency Active Sonar

Although technically not part of the SURTASS LFA sonar system, the Navy also proposes to use a high-frequency sonar system, called the High Frequency Marine Mammal Monitoring sonar (HF/M3 sonar), to detect and locate marine mammals within the SURTASS LFA sonar activity areas and mitigation and buffer zones, as described later in this proposed rule. This enhanced commercial fish-finding sonar, mounted at the top of the SURTASS LFA sonar vertical line array, has a source level of 220 dB re: 1 µPa at 1 m with a frequency range from 30 to 40 kilohertz (kHz). The duty cycle is variable, but is normally below three to four percent and the maximum pulse duration is 40 milliseconds. The HF/M3 sonar has four transducers with 8° horizontal and 10° vertical beamwidths, which sweep a full 360° in the horizontal plane every 45 to 60 sec with a maximum range of approximately 1.2 mi (2 km).

Vessel Specifications

The Navy proposes to deploy the SURTASS LFA sonar system on a maximum of four U.S. Naval ships: the USNS ABLE (T–AGOS 20), the USNS EFFECTIVE (T–AGOS 21), the USNS IMPECCABLE (T–AGOS 23) and the USNS VICTORIOUS (T–AGOS 19).

The USNS ABLE, EFFECTIVE, and VICTORIOUS, are twin-hulled ocean surveillance ships. Each vessel has a length of 235 feet (ft) (71.6 meters (m)); a beam of 93.6 ft (28.5 m); a maximum draft of 25 ft (7.6 m); and a full load displacement of 3,396 tons (3,451 metric tons). A twin-shaft diesel electric engine provides 3,200 horsepower (hp), which drives two propellers.

The USNS IMPECCABLE, also a twin-hulled ocean surveillance ship, has a length of 281.5 ft (85.8 m); a beam of 95.8 ft (29.2 m); a maximum draft of 26 ft (7.9 m); and a full load displacement of 5,368 tons (5,454 metric tons). A twin-shaft diesel electric engine provides 5,000 hp, which drives two propellers.

The operational speed of each vessel during sonar activities will be approximately 3.4 miles per hour (mph) (5.6 km per hour (km/hr); 3 knots (kt)) and each vessel's cruising speed outside

of sonar activities would be a maximum of approximately 11.5 to 14.9 mph (18.5 to 24.1 km/hr; 10 to 13 kts). During sonar activities, the SURTASS LFA sonar vessels will generally travel in straight lines or in oval-shaped (*i.e.,* racetrack) patterns depending on the operational scenario.

Each vessel also has an observation area on the bridge from where lookouts will monitor for marine mammals before and during LFA sonar activities. When stationed on the bridge of the USNS ABLE, EFFECTIVE, or VICTORIOUS, the lookout's eye level will be approximately 32 ft (9.7 m) above sea level providing an unobstructed view around the entire vessel. For the USNS IMPECCABLE, the lookout's eye level will be approximately 45 ft (13.7 m) above sea level.

Notice of Receipt Comments and Responses

On October 21, 2016, NMFS published a notice of receipt (NOR) of an application for rulemaking in the **Federal Register** (81 FR 72782) and requested comments and information from the interested public for 30 days. During the 30-day comment period, which ended on November 21, 2016, NMFS received one comment from an environmental non-governmental organization. This comment stated that the Navy should address several shortcomings in the application such as: (1) Update the information of the impacts of LFA sonar on sensitive federal protected species and their critical habitat; (2) increase the number of offshore biological important areas and expand others to include marine mammal critical habitat; (3) increase current buffer zones to reduce impacts of LFA sonar; (4) update the scientific information of the impact of LFA sonar on marine mammals; (5) provide an analysis of negative effects for information-poor populations; (6) analyze cumulative impacts of LFA sonar, including the synergistic/additive effects of climate change; and (7) include additional mitigation measures to reduce LFA sonar impacts.

The Navy addressed impacts to endangered and threatened species and critical habitat in their application, and the Navy and NMFS' Office of Protected Resources Permits and Conservation Division are currently in consultation with NMFS' Office of Protected Resources ESA Interagency Consultation Division. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989), the impacts from past and ongoing anthropogenic activities are reflected in the environmental baseline (*e.g.,* these impacts are reflected in the density/distribution and status of the species, population size and growth rate, and ambient noise). The reader is also referred to the 2016 DSEIS/SOEIS for more detailed information, including the cumulative impacts and climate change analyses. As noted in the Navy's application, as well as the DSEIS/SOEIS (for which NMFS is a cooperating agency with the Navy for purposes of adopting the DSEIS for this action and in this proposed rule, the number of biologically important areas under consideration have been expanded (commenter noted there are only 22 OBIAs, but there are 28 included in the application and DSEIS/SOEIS). NMFS has addressed the issue of increased buffer zones in previous rulemaking, and it was determined that this was not warranted (see 77 FR 50290, August 20, 2012, Comment 36 Response, and response to comment NRDC–17 of the Navy's 2012 FSEIS/SOEIS for rationale for the additional 1 km buffer). Reanalysis of the matter in this rule confirms this determination. Required buffer zones imposed by NMFS on the Navy's SURTASS LFA sonar include an additional 1 km buffer zone around the Navy's LFA Mitigation Zone and an additional 1 km buffer zone seaward of any OBIA during the time of biological importance. Implementation of the additional 1 km buffer zone will ensure that no marine mammals are exposed to an SPL greater than approximately 174 dB re: 1 μPa, which is below levels for which most marine mammals are anticipated to experience onset of TTS or PTS, and therefore limits potential takes to lower-level Level B behavioral harassment. Lastly, NMFS and Navy evaluated ways to address data-poor scenarios and potential additional mitigation measures as part of the rulemaking process and ongoing adaptive management, which is described in more detail below.

The Marine Mammal Commission (MMC) did not submit comments in response to the NOR, but had previously submitted comments to the Navy and NMFS in response to the Navy's DSEIS/OEIS, and stated that these comments would also suffice as their comments on the Navy's application. The MMC made recommendations to use the best available science plus some measure of uncertainty (*e.g.,* mean plus two standard deviations, mean plus the coefficient of variation, the upper limit of the confidence level) in instances where density data were extrapolated due to data not being available; that the Navy make its Marine Species Density Database (NMSDD) available to the public as soon as possible, specify how density estimates were derived, and what statistic (*e.g.,* mean, median, maximum) was used when multiple sources are referenced; expressed concern regarding the Navy's use of the single ping equivalent (SPE) metric (discussed in more detail below), and recommended that the Navy either use the SPL or sound exposure level (SEL) metric in assessment of behavioral risk from exposure to SURTASS LFA sonar, or use behavior response metrics and thresholds based on Finneran and Jenkins (2012); recommended that the Navy amend its DSEIS/SOEIS to specify the numbers of marine mammals that could be taken by Level A and B harassment incidental to operating SURTASS LFA sonar, rather than providing the percentages of each stock for such takes; requested further clarification in regard to whether there were zero Level A takes modeled, or if Level A takes were reduced to zero with mitigation applied; and expressed agreement with the proposed expansion of five OBIAs and the addition of six new OBIAs, but requested additional information on the evaluation for determining that other areas did not meet the criteria for designation as OBIAs.

Regarding the NMSDD, all data sources that go into the database are cited so they can be obtained. Some of the data sources are proprietary, so the Navy is unable to provide the NMSDD in GIS shapefile format because they only have a license for the Navy. NMFS notes that the single ping equivalent (SPE) has been used in each of the previous rulemakings and NMFS continues to believe the use of this metric is appropriate for assessing behavioral responses for SURTASS LFA sonar because it is a conservative estimate that accounts for the increased potential for behavioral responses due to repeated exposures by adding 5 x log10 (number of pings) to each 1-dB received level (RL) increment, and sums these across all dB levels to determine the dB SPE for each modeled animal (*i.e.,* SPE is a cumulative metric which accounts for not only the level of exposure but also the duration of exposure). The behavior response data used to derive Finneran and Jenkins (2012) thresholds were from mid-frequency sources, while the data used to derive the behavioral thresholds for SURTASS LFA were specifically from studies using the actual source. Therefore, NMFS feels they are more appropriate to apply to SURTASS LFA sonar. Also, as in previous rulemakings, the proposed rule does not specify the

number of marine mammals that may be taken in the proposed locations because these numbers are determined annually through various inputs such as mission location, mission duration, and season of operation. As with previous rulemakings, this proposed rule analyzes a maximum of 12 percent takes by Level B harassment per stock annually, and the Navy will use the 12 percent limit to guide its mission planning and annual LOA applications as described in more detail below. We also note that the analysis for this rulemaking used the updated thresholds per the NMFS 2016 Acoustic Technical Guidance, and based on this analysis, NMFS and the Navy believe that it is unlikely that Level A Harassment takes are likely to occur, and therefore none are proposed to be authorized. Lastly, in regard to OBIAs, we continue to work with the Navy in reviewing and analyzing OBIAs as part of adaptive management. As described in the 2012 rulemaking as well as the Navy's 2016 application and DSEIS/SOEIS, as new information becomes available, areas are re-evaluated to determine if any areas should be added or expanded. NMFS has also evaluated the recommendations in a white paper written by NMFS scientists (discussed in detail below).

Description of Marine Mammals in the Area of the Specified Activities

One hundred and four (104) currently classified marine mammal species or stocks have confirmed or possible occurrence within potential SURTASS LFA activity areas in certain areas of the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea. Fifteen (15) species of baleen whales (mysticetes), 60 species of toothed whales, dolphins, or porpoises (odontocetes), and 29 species of seals or sea lions (pinnipeds) could be affected by SURTASS LFA sonar activities. Multiple stocks of some species are affected, and independent assessments are conducted to make the necessary findings and determinations for each of these.

There are 20 marine mammal species under NMFS' jurisdiction that are listed as endangered or threatened under the Endangered Species Act (ESA; 16 U.S.C. 1531 *et seq.*) with confirmed or possible occurrence in potential activity areas for SURTASS LFA sonar. Marine mammal species under NMFS' jurisdiction listed as endangered include: The blue whale (*Balaenoptera musculus*); fin whale (*Balaenoptera physalus*); sei whale (*Balaenoptera borealis*); the Arabian Sea, Cape Verde Islands/Northwest Africa, Central America, and Western North Pacific distinct population segments (DPS) of humpback whale (*Megaptera novaeangliae*); bowhead whale (*Balaena mysticetus*); North Atlantic right whale (*Eubalaena glacialis*); North Pacific right whale (*Eubalaena japonica*); southern right whale (*Eubalaena australis*); Western North Pacific population of gray whale (*Eschrichtius robustus*); sperm whale (*Physeter macrocephalus*); the Cook Inlet stock of beluga whale (*Delphinapterus leucas*); the main Hawaiian Islands Insular DPS of false killer whale (*Psuedorca crassidens*); the Southern Resident population of Killer whale (*Orca orcinus*); the Western DPS of the Steller sea lion (*Eumetopias jubatus*); Mediterranean monk seal (*Monachus monachus*); and Hawaiian monk seal (*Monachus schauinslandi*). Marine mammal species under NMFS' jurisdiction listed as threatened include: The Guadalupe fur seal (*Arctocephalus townsendi*); the Okhotsk ringed seal (*Pusa hispida ochotensis*); the Okhotsk DPS of Pacific bearded seal (*Erignathus barbatus nauticus*); the southern DPS of the spotted seal (*Phoca largha*); and the Mexico DPS of humpback whale (*Megaptera novaeangliae*). Additionally, the Gulf of Mexico subspecies of the Bryde's whale has recently been proposed for listing under the ESA as endangered. The aforementioned threatened and endangered marine mammal species also are depleted under the MMPA.

Three of the 104 species or stocks with potential occurrences within possible SURTASS LFA activity areas are considered depleted under the MMPA but are not ESA-listed. They are: The Eastern (Loughlin's) Steller sea lion (*Eumetopias jubatus monteriensis*); the Pribilof Island/Eastern Pacific stock of northern fur seal (*Callorhinus ursinus*); and the arctic ringed seal (*Pusa hispida hispida*).

Chinese river dolphins (*Lipotes vexillifer*) and vaquita (*Phocoena sinus*) do not have stocks designated within potential SURTASS LFA sonar operational areas (see Potential SURTASS LFA Operational Areas section). The distribution of the Chinese river dolphin is limited to the main channel of a river section between the cities of Jingzhou and Jiangyin. The vaquita's distribution is restricted to the upper portion of the northern Gulf of California, mostly within the Colorado River delta. Based on the extremely rare occurrence of these species in the Navy's operational areas and coastal standoff range (*i.e.,* distance of 22 km (13 mi; 12 nmi) from land), take of Chinese river dolphins or vaquita is not considered a reasonable likelihood; therefore these species are not addressed further in this document.

The U.S. Fish and Wildlife Service (USFWS) is responsible for managing the following marine mammal species: Southern sea otter (*Enhydra lutris*), polar bear (*Ursus maritimus*), walrus (*Odobenus rosmarus*), west African manatee (*Trichechus senegalensis*), Amazonian manatee (*Trichechus inunguis*), west Indian manatee (*Trichechus manatus*), and dugong (*Dugong dugon*). None of these species occur in geographic areas that would overlap with SURTASS LFA sonar operational areas. Therefore, the Navy has determined that SURTASS LFA sonar activities would have no effect on the endangered or threatened species or the critical habitat of the ESA-listed species under the jurisdiction of the USFWS. These species are not considered further in this notice.

Tables 3 through 28 (below) summarize the abundance, status under the ESA, and density estimates of the marine mammal species and stocks that have confirmed or possible occurrence within 26 SURTASS LFA sonar operating areas in the Pacific, Indian, and Atlantic Oceans and Mediterranean Sea. To accurately assess the potential effects of worldwide SURTASS LFA sonar activities, the Navy modeled 26 representative sites based on the Navy's current assessment of current and future requirements or threats.

TABLE 3—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 1, THE SEA OF JAPAN

[Summer season]

Species	Stock name [1]	Stock abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	[5] NA	EN
Fin whale	WNP	9,250	0.0002	EN
Sei whale	NP	7,000	0.0006	EN

TABLE 3—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 1, THE SEA OF JAPAN—Continued

[Summer season]

Species	Stock name [1]	Stock abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Bryde's whale	WNP	20,501	0.0006	NL
Minke whale	WNP "O" Stock	25,049	0.0022	NL
North Pacific right whale	WNP	922	NA	EN
Humpback whale	WNP	1,328	0.00036	EN
Sperm whale	NP	102,112	0.00123	EN
Harbor porpoise	WNP	31,046	0.0190	NL
Baird's beaked whale	WNP	8,000	0.0029	NL
Cuvier's beaked whale	WNP	90,725	0.0031	NL
Ginkgo-toothed beaked whale	NP	22,799	0.0005	NL
Hubbs beaked whale	NP	22,799	0.0005	NL
False killer whale	WNP—Pelagic	16,668	0.0036	NL
Pygmy killer whale	WNP	30,214	0.0021	NL
Short-finned pilot whale	WNP	53,608	0.0128	NL
Risso's dolphin	WNP	83,289	0.0097	NL
Short-beaked common dolphin	WNP	3,286,163	0.0761	NL
Killer whale	WNP	12,256	0.0001	NL
Common bottlenose dolphin	WNP	168,791	0.0171	NL
Pantropical spotted dolphin	WNP	438,064	0.0259	NL
Striped dolphin	WNP	570,038	0.0111	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Pacific white-sided dolphin	NP	931,000	0.0082	NL
Rough-toothed dolphin	WNP	145,729	0.0059	NL
Kogia spp	WNP	350,553	0.0031	NL
Stejneger's beaked whale	WNP	8,000	0.0005	NL

[1] NP = north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 4—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 2, NORTH PHILIPPINE SEA OPERATIONAL AREA

[Fall season]

Species	Stock name [1]	Abundance [2]	Density (animals/Km^2) [3]	ESA status [4]
Bryde's whale	WNP	20,501	0.0006	NL
Minke whale	WNP "O" Stock	25,049	0.0044	NL
North Pacific right whale	WNP	922	[5] NA	EN
Blue whale	WNP	9,250	.00001	EN
Fin whale	WNP	9,250	NA	EN
Humpback whale	WNP	1,328	.00089	EN
Omura's whale	WNP	1,800	.00006	NL
Sperm whale	NP	102,112	0.00123	EN
Common bottlenose dolphin	WNP	168,791	0.0146	NL
Cuvier's beaked whale	WNP	90,725	0.0054	NL
Blainville's beaked whale	WNP	8,032	0.0005	NL
Ginkgo-toothed beaked whale	NP	22,799	0.0005	NL
Killer whale	WNP	12,256	0.00009	NL
False killer whale	WNP—Pelagic	16,668	0.0029	NL
Pygmy killer whale	WNP	30,214	0.0021	NL
Melon-headed whale	WNP	36,770	0.00428	NL
Short-finned pilot whale	WNP	53,608	0.0153	NL
Risso's dolphin	WNP	83,289	0.0106	NL
Short-beaked common dolphin	WNP	3,286,163	0.0562	NL
Fraser's dolphin	WNP	220,789	0.0069	NL
Kogia spp	WNP	350,553	0.0031	*
Long-beaked common dolphin	WNP	279,182	0.1158	NL
Longman's beaked whale	WNP	4,571	0.00025	NL
Pantropical spotted dolphin	WNP	438,064	0.0137	NL
Striped dolphin	WNP	570,038	0.0329	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Pacific white-sided dolphin	NP	931,000	NA	NL
Rough-toothed dolphin	WNP	145,729	0.0059	NL

[1] NP = north Pacific; WNP = western north Pacific.

[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 5—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 3, WEST PHILIPPINE SEA OPERATIONAL AREA

[Fall season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	.00001	EN
Bryde's whale	WNP	20,501	0.0006	NL
Minke whale	WNP "O" Stock	25,049	0.0033	NL
Fin whale	WNP	9,250	[5] NA	EN
Humpback whale	WNP	1,328	0.00089	EN
Omura's whale	WNP	1,800	0.00006	NL
Sperm whale	NP	102,112	0.00123	EN
Killer whale	WNP	12,256	0.00009	NL
Cuvier's beaked whale	WNP	90,725	0.0003	NL
Blainville's beaked whale	WNP	8,032	0.0005	NL
Ginkgo-toothed beaked whale	NP	22,799	0.0005	NL
False killer whale	WNP—Pelagic	16,668	0.0029	NL
Pygmy killer whale	WNP	30,214	0.0021	NL
Melon-headed whale	WNP	36,770	0.00428	NL
Short-finned pilot whale	WNP	53,608	0.0076	NL
Risso's dolphin	WNP	83,289	0.0106	NL
Kogia spp	WNP	350,553	0.0017	*
Fraser's dolphin	WNP	220,789	0.0069	NL
Common bottlenose dolphin	WNP	168,791	0.0146	NL
Deraniyagala's beaked whale	NP	22,799	0.0005	NL
Pantropical spotted dolphin	WNP	438,064	0.0137	NL
Striped dolphin	WNP	570,038	0.0164	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Rough-toothed dolphin	WNP	145,729	0.0059	NL
Long-beaked common dolphin	WNP	279,182	0.1158	NL
Longman's beaked whale	WNP	4,571	0.00025	NL

[1] NP = north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 6—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 4, OFFSHORE GUAM

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	NA [5]	EN
Fin whale	WNP	9,250	NA	EN
Sei whale	NP	7,000	NA	EN
Bryde's whale	WNP	20,501	0.0004	NL
Minke whale	WNP "O" Stock	25,049	NA	NL
Humpback whale	WNP	1,328	NA	EN
Omura's whale	WNP	1,800	0.00004	NL
Sperm whale	NP	102,112	0.00123	EN
Pygmy sperm whale	WNP	350,553	0.00291	NL
Dwarf sperm whale	WNP	350,553	0.00714	NL
Cuvier's beaked whale	WNP	90,725	0.00079	NL
Blainville's beaked whale	WNP	8,032	0.001	NL
Ginkgo-toothed beaked whale	NP	22,799	0.00093	NL
Longman's beaked whale	WNP	4,571	0.0019	NL
Killer whale	WNP	12,256	0.00014	NL
False killer whale	WNP—Pelagic	16,668	0.00111	NL
Pygmy killer whale	WNP	30,214	0.00014	NL
Melon-headed whale	NMI	2,455	0.00428	NL
Short-finned pilot whale	WNP	53,608	0.0051	NL
Risso's dolphin	WNP	83,289	0.003	NL
Deraniyagala's beaked whale	NP	22,799	0.00093	NL
Fraser's dolphin	CNP	16,992	0.0069	NL

TABLE 6—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 4, OFFSHORE GUAM—Continued

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Common bottlenose dolphin	WNP	168,791	0.00245	NL
Pantropical spotted dolphin	WNP	438,064	0.0226	NL
Striped dolphin	WNP	570,038	0.00616	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Rough-toothed dolphin	WNP	145,729	0.0026	NL

[1] CNP = central north Pacific; NP = north Pacific; WNP = western north Pacific; NMI = Northern Mariana Islands.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 7—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 5, SEA OF JAPAN

[Fall season]

Species	Stock name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Fin whale	WNP	9,250	0.0009	EN
Bryde's whale	WNP	20,501	0.0001	NL
Minke whale	WNP "O" Stock	25,049	0.0004	NL
Minke whale	WNP "J" Stock	893	0.00016	NL
North Pacific right whale	WNP	922	[5] NA	EN
Gray whale	WNP	140	0.00001	EN [6]
Omura's whale	WNP	1,800	0.00001	NL
Sperm whale	NP	102,112	0.00123	EN
Stejneger's beaked whale	WNP	8,000	0.0005	NL
Baird's beaked whale	WNP	8,000	0.0003	NL
Cuvier's beaked whale	WNP	90,725	0.0031	NL
Harbor porpoise	WNP	31,046	0.0190	NL
False killer whale	IA-Pelagic	9,777	0.0027	NL
Killer whale	WNP	12,256	0.00009	NL
Short-finned pilot whale	WNP	53,608	0.0014	NL
Risso's dolphin	IA	83,289	0.0073	NL
Short-beaked common dolphin	WNP	3,286,163	0.0860	NL
Common bottlenose dolphin	IA	105,138	0.00077	NL
Kogia spp	WNP	350,553	0.0017	*
Spinner dolphin	WNP	1,015,059	0.00083	NL
Pacific white-sided dolphin	NP	931,000	NA	NL
Dall's porpoise	SOJ	173,638	0.0520	NL
Long-beaked common dolphin	WNP	279,182	0.1158	NL
Rough-toothed dolphin	WNP	145,729	0.0026	NL
Striped dolphin	IA	570,038	0.00584	NL
Spotted seal	Southern stock	3,500	0.00001	T

[1] IA = Inshore Archipelago; NP = north Pacific; SOJ = Sea of Japan; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.
[6] Only the western Pacific population of gray whale is endangered under the ESA.

TABLE 8—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 6, EAST CHINA SEA

[Summer season]

Species	Stock Name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Fin whale	ECS	500	0.0002	EN
Bryde's whale	ECS	137	0.0003	NL
Minke whale	WNP "O" Stock	25,049	0.0044	NL
Minke whale	WNP "J" Stock	893	0.0018	NL
North Pacific right whale	WNP	922	[5] NA	EN
Gray whale	WNP	140	NA	EN [6]
Omura's whale	WNP	1,800	0.00003	NL

TABLE 8—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 6, EAST CHINA SEA—Continued

[Summer season]

Species	Stock Name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Sperm whale	NP	102,112	0.00123	EN
Cuvier's beaked whale	WNP	90,725	0.0003	NL
Blainville's beaked whale	WNP	8,032	0.0005	NL
Ginkgo-toothed beaked whale	NP	22,799	0.0005	NL
False killer whale	IA-Pelagic	9,777	0.00111	NL
Pygmy killer whale	WNP	30,214	0.00014	NL
Melon-headed whale	WNP	36,770	0.00428	NL
Short-finned pilot whale	WNP	53,608	0.0016	NL
Risso's dolphin	IA	83,289	0.0106	NL
Short-beaked common dolphin	WNP	3,286,163	0.0461	NL
Fraser's dolphin	WNP	220,789	0.00694	NL
Common bottlenose dolphin	IA	105,138	0.00077	NL
Pantropical spotted dolphin	WNP	219,032	0.01374	NL
Striped dolphin	IA	570,038	0.00584	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Pacific white-sided dolphin	NP	931,000	NA	NL
Rough-toothed dolphin	WNP	145,729	0.0026	NL
Killer whale	WNP	12,256	0.00009	NL
Kogia spp	WNP	350,553	0.0017	*
Long-beaked common dolphin	WNP	279,182	0.1158	NL
Longman's beaked whale	WNP	4,571	0.00025	NL
Spotted seal	Southern stock	1,000	0.00001	T

[1] ECS = East China Sea; IA = Inshore Archipelago; NP = north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.
[6] Only the western Pacific population of gray whale is endangered under the ESA.

TABLE 9—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 7, SOUTH CHINA SEA

[Fall season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Fin whale	WNP	9,250	0.0002	EN
Bryde's whale	WNP	20,501	0.0006	NL
Minke whale	WNP "O" Stock	25,049	0.0033	NL
Minke whale	WNP "J" Stock	893	0.0018	NL
Humpback whale	WNP	1,328	0.00036	EN
North Pacific right whale	WNP	922	[5] NA	EN
Omura's whale	WNP	1,800	0. 00006	NL
Gray whale	WNP	140	0.00001	EN [6]
Sperm whale	NP	102,112	0.0012	EN
Long-beaked common dolphin	WNP	279,182	0.1158	NL
Cuvier's beaked whale	WNP	90,725	0.0003	NL
Blainville's beaked whale	WNP	8,032	0.0005	NL
Ginkgo-toothed beaked whale	NP	22,799	0.0005	NL
False killer whale	IA-Pelagic	9,777	0.00111	NL
Pygmy killer whale	WNP	30,214	0.00014	NL
Melon-headed whale	WNP	36,770	0.00428	NL
Short-finned pilot whale	WNP	53,608	0.00159	NL
Risso's dolphin	IA	83,289	0.0106	NL
Longman's beaked whale	WNP	4,571	0.00025	NL
Fraser's dolphin	WNP	220,789	0.00694	NL
Common bottlenose dolphin	IA	105,138	0.00077	NL
Pantropical spotted dolphin	WNP	219,032	0.01374	NL
Striped dolphin	IA	570,038	0.00584	NL
Spinner dolphin	WNP	1,015,059	0.00083	NL
Rough-toothed dolphin	WNP	145,729	0.0026	NL
Deraniyagala's beaked whale	NP	22,799	0.0005	NL
Killer whale	WNP	12,256	0.00009	NL
Kogia spp	WNP	350,553	0.0017	*

[1] IA = Inshore Archipelago; NP = north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.

[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.
[6] Only the western Pacific population of gray whale is endangered under the ESA.

TABLE 10—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 8, OFFSHORE JAPAN 25° TO 40° N.

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	[5]NA	EN
Fin whale	WNP	9,250	0.0001	EN
Sei whale	NP	7,000	0.00029	EN
Bryde's whale	WNP	20,501	0.00041	NL
Minke whale	WNP "O" Stock	25,049	0.0003	NL
Humpback whale	WNP	1,328	0.00036	EN
Sperm whale	NP	102,112	0.0022	EN
Pygmy sperm whale	WNP	350,553	0.0018	NL
Dwarf sperm whale	WNP	350,553	0.0043	NL
Northern right whale dolphin	NP	68,000	NA	NL
Blainville's beaked whale	WNP	8,032	0.0007	NL
Hubb's beaked whale	NP	22,799	0.0005	NL
Killer whale	WNP	12,296	0.00009	NL
Longman's beaked whale	WNP	4,571	0.0003	NL
Baird's beaked whale	WNP	8,000	0.0001	NL
Cuvier's beaked whale	NP	90,725	0.00374	NL
Mesoplodon spp	WNP	22,799	0.0005	NL
False killer whale	WNP-Pelagic	16,668	0.0036	NL
Pygmy killer whale	WNP	30,214	0.0001	NL
Melon-headed whale	WNP	36,770	0.0027	NL
Short-finned pilot whale	WNP	53,608	0.0021	NL
Risso's dolphin	WNP	83,289	0.0005	NL
Short-beaked common dolphin	WNP	3,286,163	0.0863	NL
Common bottlenose dolphin	WNP	168,791	0.00077	NL
Pantropical spotted dolphin	WNP	438,064	0.0113	NL
Striped dolphin	WNP	570,038	0.0058	NL
Spinner dolphin	WNP	1,015,059	0.0019	NL
Pacific white-sided dolphin	NP	931,000	0.0048	NL
Rough-toothed dolphin	WNP	145,729	0.0019	NL
Stejneger's beaked whale	WNP	8,000	0.0005	NL
Hawaiian monk seal	Hawaii	1,400	0.00001	EN
Northern fur seal	Western Pacific	503,609	NA	NL

[1] NP = north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 11—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 9, OFFSHORE JAPAN 10° TO 25° N.

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	0.00001	EN
Bryde's whale	WNP	20,501	0.0003	NL
Fin whale	WNP	9,250	0.00001	EN
Humpback whale	WNP	1,328	0.00036	EN
Omura's whale	WNP	1,800	0.00003	NL
Sei whale	NP	7,000	0.0029	EN
Sperm whale	NP	102,112	0.00222	EN
Pygmy sperm whale	WNP	350,553	0.00176	NL
Dwarf sperm whale	WNP	350,553	0.0043	NL
Cuvier's beaked whale	WNP	90,725	0.00374	NL
False killer whale	WNP	16,668	0.00057	NL
Melon-headed whale	WNP	36,770	0.00267	NL
Short-finned pilot whale	WNP	53,608	0.00211	NL
Risso's dolphin	WNP	83,289	0.00046	NL
Pygmy killer whale	WNP	30,214	0.00006	NL
Common bottlenose dolphin	WNP	168,791	0.00077	NL

TABLE 11—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 9, OFFSHORE JAPAN 10° TO 25° N.—Continued

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Pantropical spotted dolphin	WNP	438,064	0.01132	NL
Striped dolphin	WNP	570,038	0.00584	NL
Spinner dolphin	WNP	1,015,059	0.00187	NL
Rough-toothed dolphin	WNP	145,729	0.00185	NL
Blainville's beaked whale	WNP	8,032	0.0007	NL
Deraniyagala's beaked whale	NP	22,799	0.00093	NL
Fraser's dolphin	CNP	16,992	0.00251	NL
Ginkgo-toothed beaked whale	NP	22,799	0.00093	NL
Killer whale	WNP	12,256	0.00009	NL
Longman's beaked whale	WNP	4,571	0.00025	NL

[1] NP = north Pacific; CNP = central north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 12—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 10, NORTHERN HAWAII

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	CNP	81	[5]NA	EN
Bryde's whale	Hawaii	798	0.0003	NL
Common minke whale	Hawaii	25,049	NA	NL
Humpback whale	Hawaii DPS	10,103	NA	NL
Fin whale	Hawaii	58	NA	EN
Sei whale	Hawaii	178	NA	EN
Sperm whale	Hawaii	3,354	0.0014	EN
Pygmy sperm	Hawaii	7,138	0.0029	NL
Dwarf sperm whale	Hawaii	17,519	0.00714	NL
Cuvier's beaked whale	Hawaii	1,941	0.0008	NL
Blainville's beaked whale	Hawaii	2,338	0.001	NL
Longman's beaked whale	Hawaii	4,571	0.0019	NL
Killer whale	Hawaii	101	0.00004	NL
False killer whale	Hawaii-Pelagic	1,540	0.0006	NL
False killer whale	Main Hawaiian Islands Insular	151	0.0012	EN
False killer whale	Northwestern Hawaiian Islands	617	0.0013	NL
Pygmy killer whale	Hawaii	3,433	0.0014	NL
Melon-headed whale	Hawaiian Islands	5,794	0.0012	NL
Melon-headed whale	Kohala Resident	447	0.03725	NL
Short-finned pilot whale	Hawaii	12,422	0.0051	NL
Risso's dolphin	Hawaii	7,256	0.003	NL
Fraser's dolphin	Hawaii	16,992	0.0069	NL
Common bottlenose dolphin	Hawaii pelagic	5,950	0.0025	NL
Common bottlenose dolphin	Kauai/Niihau	184	0.0001	NL
Common bottlenose dolphin	4 Islands	191	0.0001	NL
Common bottlenose dolphin	Oahu	743	0.0003	NL
Common bottlenose dolphin	Hawaii Island	128	0.0001	NL
Pantropical spotted dolphin	Hawaiian Pelagic	15,917	0.0067	NL
Pantropical spotted dolphin	Hawaiian Island	220	0.0067	NL
Pantropical spotted dolphin	Oahu	220	0.0067	NL
Pantropical spotted dolphin	4 Islands	220	0.0067	NL
Striped dolphin	Hawaii	20,650	0.0084	NL
Spinner dolphin	Hawaii Pelagic	3,351	0.0008	NL
Spinner dolphin	Kauai/Nihau	601	0.007	NL
Spinner dolphin	Hawaiian Island	631	0.007	NL
Spinner dolphin	Oahu/4 Islands	355	0.007	NL
Spinner dolphin	Kure/Midway Atoll	260	0.007	NL
Spinner dolphin	Pearl and Hermes Reef	300	0.007	NL
Rough-toothed dolphin	Hawaii	6,288	0.0026	NL
Hawaiian monk seal	Hawaii	1,112	0.00001	EN

[1] CNP = central north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 13—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 11, SOUTHERN HAWAII

[Fall season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	CNP	81	0.00003	EN
Fin whale	Hawaii	58	0.00002	EN
Bryde's whale	Hawaii	798	0.0003	NL
Common minke whale	Hawaii	25,049	0.0002	NL
Humpback whale	Hawaii DPS	10,103	0.00089	NL
Sei whale	Hawaii	178	0.0001	EN
Sperm whale	Hawaii	3,354	0.0014	EN
Pygmy sperm whale	Hawaii	7,138	0.0029	NL
Blainville's beaked whale	Hawaii	2,338	0.001	NL
Longman's beaked whale	Hawaii	4,571	0.0019	NL
Killer whale	Hawaii	101	0.00004	NL
False killer whale	Hawaii-Pelagic	1,540	0.0006	NL
False killer whale	Main Hawaiian Island Insular	151	0.0012	EN
Pygmy killer whale	Hawaii	3,433	0.0014	NL
Melon-headed whale	Hawaiian Islands	5,794	0.0012	NL
Melon-headed whale	Kohala Resident	447	0.03725	NL
Short-finned pilot whale	Hawaii	12,422	0.0051	NL
Risso's dolphin	Hawaii	7,256	0.003	NL
Fraser's dolphin	Hawaii	16,992	0.0069	NL
Common bottlenose dolphin	Hawaii Pelagic	5,950	0.00245	NL
Common bottlenose dolphin	Kauai/Niihau	184	0.0001	NL
Common bottlenose dolphin	4 Islands	191	0.0001	NL
Common bottlenose dolphin	Oahu	743	0.0003	NL
Common bottlenose dolphin	Hawaii Island	128	0.0001	NL
Pantropical spotted dolphin	Hawaiian Pelagic	15,917	0.0067	NL
Pantropical spotted dolphin	Hawaii Island	220	0.0067	NL
Pantropical spotted dolphin	Oahu	220	0.0067	NL
Pantropical spotted dolphin	4 Islands	220	0.0067	NL
Striped dolphin	Hawaii	20,650	0.0084	NL
Spinner dolphin	Hawaii Pelagic	3,351	0.0008	NL
Spinner dolphin	Kauai/Niihau	601	0.007	NL
Spinner dolphin	Hawaii Island	631	0.007	NL
Spinner dolphin	Oahu/4 Islands	355	0.007	NL
Rough toothed dolphin	Hawaii	6,288	0.0026	NL
Cuvier's beaked whale	Hawaii	1,914	0.0008	NL
Deraniyagala's beaked whale	NP	22,799	0.00093	NL
Dwarf sperm whale	Hawaii	17,519	0.00714	NL
Hawaiian monk seal	Hawaii	1,400	0.00001	EN

[1] CNP = central north Pacific; WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 14—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 12, OFFSHORE SOUTHERN CALIFORNIA

[Spring season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	ENP	1,647	0.00011	EN
Fin whale	CA/OR/WA	3,051	0.00022	EN
Sei whale	ENP	126	0.00009	EN
Bryde's whale	ENP	13,000	0.00001	NL
Common minke whale	CA/OR/WA	478	0.00026	NL
Humpback whale	Mexico DPS	1,918	0.00121	T
Gray whale	ENP	20,990	0.03090	NL
Gray whale	WNP	140	0.00001	EN [5]
Sperm whale	CA/OR/WA	2,106	0.00337	EN
Pygmy sperm whale	CA/OR/WA	579	0.00108	NL
Stejneger's beaked whale	CA/OR/WA	694	0.00065	NL
Baird's beaked whale	CA/OR/WA	847	0.00046	NL
Cuvier's beaked whale	CA/OR/WA	6,590	0.00358	NL
Blainville's beaked whale	CA/OR/WA	694	0.00101	NL
Ginkgo-toothed beaked whale	CA/OR/WA	694	0.00020	NL
Hubbs beaked whale	CA/OR/WA	694	0.00086	NL
Striped dolphin	CA/OR/WA	10,908	0.02592	NL

TABLE 14—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 12, OFFSHORE SOUTHERN CALIFORNIA—Continued

[Spring season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Perrin's beaked whale	CA/OR/WA	694	0.00088	NL
Pygmy beaked whale	CA/OR/WA	694	0.00020	NL
Killer whale (offshore)	EP	240	0.00030	NL
Short-finned pilot whale	CA/OR/WA	760	0.00031	NL
Risso's dolphin	CA/OR/WA	6,272	0.0100	NL
Long-beaked common dolphin	CA	107,016	0.08591	NL
Short-beaked common dolphin	CA/OR/WA	411,211	0.95146	NL
Common bottlenose dolphin (offshore)	CA/OR/WA	1,006	0.01230	NL
Pacific white-sided dolphin	CA/OR/WA	26,930	0.21549	NL
Northern right whale dolphin	CA/OR/WA	21,332	0.13352	NL
Dall's porpoise	CA/OR/WA	42,000	0.02184	NL
Guadalupe fur seal	Mexico	7,408	0.00387	T
Northern fur seal	California	14,050	0.01775	NL
California sea lion	US (Pacific Temperate)	296,750	0.33596	NL
Harbor seal	California	30,968	0.02033	NL
Northern elephant seal	CA-Breeding	179,000	0.03222	NL

[1] CA/OR/WA = California, Oregon, and Washington; ENP = eastern north Pacific; EP = eastern Pacific; WNP = western north Pacific; SMI = San Miguel Island.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] Only the western Pacific population of gray whale is endangered under the ESA.

TABLE 15—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 13, WESTERN NORTH ATLANTIC OFF FLORIDA

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Humpback whale	West Indies DPS	12,132	0.00004	NL
Common minke whale	Canadian East Coast	20,174	0.00230	NL
North Atlantic right whale	WNA	476	0.00002	EN
Sperm whale	WNA	2,288	0.00083	EN
Mesoplodon spp.	WNA	7,092	0.00180	NL
Kogia spp.	WNA	3,785	0.00094	NL
Cuvier's beaked whale	WNA	6,532	0.00166	NL
Common bottlenose dolphin	Offshore WNA	77,532	0.04195	NL
Common bottlenose dolphin	Southern Migratory Coast	9,173	0.00155	NL
Common bottlenose dolphin	Northern FL Coast	1,219	0.00155	NL
Common bottlenose dolphin	Central FL Coast	4,895	0.00155	NL
Short-finned pilot whale	WNA	21,515	0.00616	NL
Risso's dolphin	WNA	18,250	0.00411	NL
False killer whale	WNA	442	0.00008	NL
Killer whale	WNA	67	0.00001	NL
Short-beaked common dolphin	WNA	173,486	0.00125	NL
Pantropical spotted dolphin	WNA	3,333	0.00608	NL
Striped dolphin	WNA	54,807	0.00298	NL
Atlantic spotted dolphin	WNA	44,715	0.01143	NL
Spinner dolphin	WNA	262	0.00040	NL
Clymene dolphin (*Stenella clymene*)	WNA	6,086	0.02522	NL
Rough-toothed dolphin	WNA	271	0.00069	NL

[1] WNA = western north Atlantic.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 16—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 14, NORTHEASTERN ATLANTIC

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	ENA	979	0.00002	EN
Fin whale	ENA	9,019	0.00100	EN
Sei whale	Iceland-Denmark Strait	10,300	0.00040	EN

TABLE 16—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 14, NORTHEASTERN ATLANTIC—Continued

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Common minke whale	Northeast Atlantic	78,572	0.00329	NL
Humpback whale	Cape Verdes and West Africa DPS.	11,572	0.00009	EN
Sperm whale	ENA	7,785	0.00077	EN
Cuvier's beaked whale	ENA	6,992	0.00700	NL
Gervais' beaked whale	ENA	6,992	0.00700	NL
Blainville's beaked whale	ENA	6,992	0.00700	NL
Sowerby's beaked whale	ENA	6,992	0.00700	NL
Northern bottlenose whale	ENA	19,538	0.00260	NL
Killer whale	Northern Norway	731	0.00001	NL
Kogia spp.	ENA	3,785	0.00079	NL
Long-finned pilot whale	ENA	128,093	0.05400	NL
Risso's dolphin	ENA	18,250	0.00200	NL
Short-beaked common dolphin	ENA	172,930	0.01000	NL
Common bottlenose dolphin	ENA	35,780	0.00200	NL
Striped dolphin	ENA	67,414	0.00150	NL
True's beaked whale	ENA	6,992	0.00700	NL
Atlantic white-sided dolphin	ENA	3,904	0.00001	NL
White-beaked dolphin	ENA	16,536	0.01400	NL
Harbor porpoise	ENA	375,358	0.07400	NL
Harbor seal	NW Europe	40,414	0.04000	NL
Gray seal	NW Europe	116,800	0.00040	NL

[1] ENA = eastern north Atlantic.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 17—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 15, MEDITERRANEAN SEA

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Fin whale	MED	3,583	0.00168	EN
Cuvier's beaked whale	Alboran Sea	429	0.000108	NL
Long-finned pilot whale	ENA	21,515	0.0027	NL
Risso's dolphin	WMED	5,320	0.0011	NL
Short-beaked common dolphin	WMED	19,428	0.00144	NL
Common bottlenose dolphin	WMED	1,676	0.00058	NL
Sperm whale	WMED	396	0.00052	EN
Striped dolphin	WMED	117,880	0.0436	NL

[1] ENA = eastern north Atlantic; MED = Mediterranean; WMED = western Mediterranean.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 18—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 16, ARABIAN SEA

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	NIND	3,432	0.00004	EN
Bryde's whale	NIND	9,176	0.0004	NL
Common minke whale	IND	257,500	0.00920	NL
Fin whale	IND	1,716	0.00092	EN
Humpback whale	XAR	200	0.00005	EN
Sperm whale	NIND	24,446	0.00877	EN
Dwarf sperm whale	IND	10,541	0.00006	NL
Cuvier's beaked whale	IND	27,272	0.00308	NL
Deraniyagala beaked whale	IND	16,867	0.00278	NL
Blainville's beaked whale	IND	16,867	0.00276	NL
Ginkgo-toothed beaked whale	IND	16,867	0.00278	NL
Longman's beaked whale	IND	16,867	0.01193	NL

TABLE 18—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 16, ARABIAN SEA—Continued

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
False killer whale	IND	144,188	0.00025	NL
Pygmy killer whale	IND	22,029	0.00141	NL
Melon-headed whale	IND	64,600	0.00931	NL
Short-finned pilot whale	IND	268,751	0.03474	NL
Risso's dolphin	IND	452,125	0.08952	NL
Fraser's dolphin	IND	151,554	0.00194	NL
Common bottlenose dolphin	IND	785,585	0.05521	NL
Pantropical spotted dolphin	IND	736,575	0.00922	NL
Striped dolphin	IND	674,578	0.15196	NL
Spinner dolphin	IND	634,108	0.00718	NL
Rough-toothed dolphin	IND	156,690	0.00075	NL
Long-beaked common dolphin	IND	1,819,882	0.00013	NL
Pygmy sperm whale	IND	10,541	0.00002	NL
Killer whale	IND	12,593	0.00737	NL
Indo-Pacific bottlenose dolphin	IND	7,850	0.00055	NL

[1] IND = Indian Ocean; NIND = northern Indian Ocean; XAR = Stock X Arabian Sea.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 19—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 17, ANDAMAN SEA

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	NIND	3,432	0.00003	EN
Bryde's whale	NIND	9,176	0.00037	NL
Common minke whale	IND	257,500	0.00968	NL
Fin whale	IND	1,716	[5] NA	EN
Omura's whale	IND	9,176	0.00037	NL
Sperm whale	NIND	24,446	0.00107	EN
Dwarf sperm whale	IND	10,541	0.00006	NL
Pygmy sperm whale	IND	10,541	0.00001	NL
Cuvier's beaked whale	IND	27,272	0.00480	NL
Blainville's beaked whale	IND	16,867	0.00094	NL
Ginkgo-toothed beaked whale	IND	16,867	0.00097	NL
Longman's beaked whale	IND	16,867	0.00459	NL
Killer whale	IND	12,593	0.00730	NL
False killer whale	IND	144,188	0.00024	NL
Fraser's dolphin	IND	151,554	0.0018	NL
Pygmy killer whale	IND	22,029	0.00125	NL
Melon-headed whale	IND	64,600	0.00878	NL
Short-finned pilot whale	IND	268,751	0.03543	NL
Risso's dolphin	IND	452,125	0.09173	NL
Long-beaked common dolphin	IND	1,819,882	0.00010	NL
Common bottlenose dolphin	IND	785,585	0.07261	NL
Indo-Pacific bottlenose dolphin	IND	7,850	0.00073	NL
Pantropical spotted dolphin	IND	736,575	0.00829	NL
Striped dolphin	IND	674,578	0.14123	NL
Spinner dolphin	IND	634,108	0.00701	NL
Rough-toothed dolphin	IND	156,690	0.00077	NL
Deraniyagala beaked whale	IND	16,867	0.00097	NL

[1] IND = Indian Ocean; NIND = northern Indian Ocean.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 20—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 18, PANAMA CANAL

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	ENP	1,647	0.00008	EN
Bryde's whale	ETP	13,000	0.0003	NL
Common minke whale	ETP	478	0.00031	NL
Fin whale	ENP	832	[5] NA	EN
Humpback whale	Central America DPS	6,000	0.00001	EN
Sperm whale	ETP	22,700	0.0047	EN
Kogia spp.	ETP	11,200	0.014	NL
Cuvier's beaked whale	ETP	20,000	0.00058	NL
Blainville's beaked whale	ETP	25,300	0.00225	NL
Ginkgo-toothed beaked whale	ETP	25,300	0.0016	NL
Longman's beaked whale	ETP	25,300	0.00225	NL
Pygmy beaked whale	ETP	25,300	0.00225	NL
Killer whale	ETP	8,500	0.00015	NL
False killer whale	ETP	39,800	0.0004	NL
Pygmy killer whale	ETP	38,900	0.0014	NL
Melon-headed whale	ETP	45,400	0.00313	NL
Short-finned pilot whale	ETP	160,200	0.01813	NL
Risso's dolphin	ETP	110,457	0.01781	NL
Short-beaked common dolphin	ETP	3,127,203	0.005	NL
Fraser's dolphin	ETP	289,300	0.001	NL
Common bottlenose dolphin	ETP	335,834	0.0375	NL
Pantropical spotted dolphin	NEOP	640,000	0.0375	NL
Striped dolphin	ETP	964,362	0.08125	NL
Spinner dolphin	Eastern	450,000	0.01875	NL
Rough-toothed dolphin	ETP	107,633	0.00488	NL
Mesoplodon spp.	ETP	25,300	0.00225	NL
Deraniyagala beaked whale	ETP	25,300	0.00225	NL

[1] ETP = eastern tropical Pacific; ENP = eastern northern Pacific; NEOP = northeastern offshore Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 21—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 19, NORTHEASTERN AUSTRALIA

[Spring season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WSP	9,250	0.00001	EN
Fin whale	WSP	9,250	0.0002	EN
Bryde's whale	WSP	20,501	0.0006	NL
Common minke whale	WSP	25,049	0.0044	EN
Humpback whale	East Australia DPS	14,500	0.00089	NL
Omura's whale	WSP	1,800	0.00006	NL
Sei whale	WSP	7,000	0.0006	EN
Sperm whale	WSP	102,112	0.00123	EN
Cuvier's beaked whale	WSP	90,725	0.0054	NL
Blainville's beaked whale	WSP	8,032	0.0005	NL
Ginkgo-toothed beaked whale	WSP	22,799	0.0005	NL
Longman's beaked whale	WSP	4,571	0.00025	NL
Kogia spp.	WSP	350,553	0.0031	NL
Killer whale	WSP	12,256	0.00009	NL
False killer whale	WSP	16,668	0.0029	NL
Pygmy killer whale	WSP	30,214	0.0021	NL
Melon-headed whale	WSP	36,770	0.00428	NL
Risso's dolphin	WSP	83,289	0.0106	NL
Short-beaked common dolphin	WSP	3,286,163	0.0562	NL
Fraser's dolphin	WSP	220,789	0.0069	NL
Common bottlenose dolphin	WSP	168,791	0.0146	NL
Pantropical spotted dolphin	WSP	438,064	0.0137	NL
Striped dolphin	WSP	570,038	0.0329	NL
Spinner dolphin	WSP	1,015,059	0.00083	NL
Pilot whales	WSP	53,608	0.0153	NL

TABLE 21—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 19, NORTHEASTERN AUSTRALIA—Continued

[Spring season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Rough-toothed dolphin	WSP	145,729	0.0059	NL

[1] GVEA = group V east Australia; WSP = western south Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 22—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 20, NORTHWESTERN AUSTRALIA

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	SIND	1,657	[5] NA	EN
Fin whale	SIND	38,185	0.00001	EN
Bryde's whale	SIND	13,854	0.00032	NL
Antarctic minke whale	ANT	90,000	NA	NL
Common minke whale	IND	257,500	NA	NL
Humpback whale	Western Australia DPS	13,640	NA	NL
Omura's whale	IND	13,854	0.00032	NL
Sei whale	IND	13,854	0.00001	EN
Blainville's beaked whale	IND	16,867	0.00083	NL
Common bottlenose dolphin	IND	3,000	0.03630	NL
Cuvier's beaked whale	IND	76,500	0.00399	NL
Dwarf sperm whale	IND	10,541	0.00004	NL
False killer whale	IND	144,188	0.00020	NL
Fraser's dolphin	IND	151,554	0.00145	NL
Killer whale	IND	12,593	0.00585	NL
Longman's beaked whale	IND	16,867	0.00393	NL
Melon-headed whale	IND	64,600	0.00717	NL
Pantropical spotted dolphin	IND	736,575	0.00727	NL
Pygmy killer whale	IND	22,029	0.00100	NL
Risso's dolphin	IND	452,125	0.07152	NL
Rough-toothed dolphin	IND	156,690	0.00059	NL
Short-finned pilot whale	IND	268,751	0.02698	NL
Southern bottlenose whale	IND	599,300	0.00083	NL
Spade-toothed beaked whale	IND	16,867	0.00083	NL
Sperm whale	SIND	24,446	0.00096	EN
Spinner dolphin	IND	634,108	0.00561	NL
Striped dolphin	IND	674,578	0.12018	NL

[1] ANT = Antarctic; SIND = southern Indian Ocean; IND = Indian Ocean.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 23—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 21, NORTHEAST OF JAPAN

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNP	9,250	[5] NA	EN
Common minke whale	WNP "O"	25,049	0.0022	NL
Fin whale	WNP	9,250	0.0002	EN
Humpback whale	WNP	1,328	0.00050	EN
North Pacific right whale	WNP	922	0.00001	EN
Sei whale	NP	7,000	0.00029	EN
Western North Pacific gray whale	Western DPS	140	0.00001	EN
Baird's beaked whale	WNP	8,000	0.0029	NL
Cuvier's beaked whale	WNP	90,725	0.0054	NL
Dall's porpoise	WNP	173,638	0.0650	NL
Killer whale	WNP	12,256	0.0036	NL
Pacific white-sided dolphin	NP	931,000	0.0048	NL
Short-beaked common dolphin	WNP	3,286,163	0.0863	NL

TABLE 23—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 21, NORTHEAST OF JAPAN—Continued

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Sperm whale	NP	102,112	0.0022	EN
Stejneger's beaked whale	WNP	8,000	0.0005	NL
Northern fur seal	Western Pacific	503,609	0.01378	NL
Ribbon seal	NP	61,100	0.0452	NL
Spotted seal	Bering Sea DPS	460,268	0.2770	NL
Steller sea lion	West-Asian stock and Western DPS.	62,218	0.00001	EN

[1] IND = Indian Ocean; NP = northern Pacific; WNP = western north Pacific; ENP = eastern north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

TABLE 24—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 22, SOUTHERN GULF OF ALASKA

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Blue whale	ENP	1,647	0.00051	EN
Common minke whale	AK	1,233	0.0006	NL
Eastern North Pacific gray whale	ENP	20,990	0.00019	NL
Fin whale	AK/NE Pacific	1,368	0.00049	EN
Humpback whale	Hawaii DPS	10,103	0.00050	NL
	Mexico DPS			T
	WNP DPS			EN
North Pacific right whale	ENP	31	0.00003	EN
Sei whale	ENP	126	0.00007	EN
Baird's beaked whale	AK	847	0.0004	NL
Cuvier's beaked whale	AK	6,590	0.00245	NL
Dall's porpoise	AK	173,638	0.07214	NL
Killer whale	ENP AK resident	2,347	0.005	NL
Killer whale	ENP Gulf of AK, Aleutian Islands, and Bering Sea Transient.	587	0.00021	NL
Pacific white-sided dolphin	NP	26,880	0.0208	NL
Sperm whale	NP	102,112	0.00127	EN
Stejneger's beaked whale	AK	694	0.00084	NL
Northern elephant seal	California Breeding	179,000	0.0038	NL
Northern fur seal	EP	648,534	0.03211	NL
Ribbon seal	AK	184,000	0.00001	NL
Steller sea lion	Eastern DPS	60,131	0.01085	NL
Steller sea lion	Western DPS	49,497	0.01085	EN

[1] IND = Indian Ocean; NP = northern Pacific; ENP = eastern north Pacific; AK = Alaska.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 25—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 23, SOUTHERN NORWEGIAN BASIN

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km²) [3]	ESA status [4]
Blue whale	ENA	979	0.00001	EN
Common minke whale	Northeast Atlantic	78,572	0.03206	NL
Fin whale	North-West Norway	6,409	0.00157	EN
Humpback whale	Cape Verdes-NW Africa DPS	11,572	0.00009	EN
	West Indies DPS			NL
Sei whale	Iceland-Denmark Strait	10,300	0.00001	EN
Atlantic white-sided dolphin	ENA	3,904	0.00001	NL
Cuvier's beaked whale	ENA	6,992	0.011	NL
Harbor porpoise	ENA	375,358	0.074	NL
Killer whale	Northern Norway	731	0.00001	NL

TABLE 25—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 23, SOUTHERN NORWEGIAN BASIN—Continued

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Long-finned pilot whale	ENA	128,093	0.054	NL
Northern bottlenose dolphin	ENA	19,538	0.0026	NL
Sowerby's beaked whale	ENA	6,992	0.011	NL
Sperm whale	ENA	7,785	0.0049	EN
White-beaked dolphin	ENA	16,536	0.011	NL
Hooded seal	West Ice	84,020	0.00811	NL

[1] ENA = eastern north Atlantic.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 26—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 24, WESTERN NORTH ATLANTIC OFF VIRGINIA/MARYLAND

[Summer season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Common minke whale	Canadian East Coast	20,741	0.00013	NL
Fin whale	WNA	1,618	0.00075	EN
Humpback whale	West Indies DPS	12,312	0.00006	NL
North Atlantic right whale	WNA	476	<0.00001	NL
Atlantic spotted dolphin	WNA	44,715	0.09630	NL
Clymene dolphin	WNA	6,086	0.01424	NL
Common bottlenose dolphin	Offshore WNA	77,532	0.04241	NL
	Northern Migratory Coastal	11,548	0.00236	NL
	Southern Migratory Coastal	9,173	0.00236	NL
Cuvier's beaked whale	WNA	6,532	0.00878	NL
False killer whale	WNA	442	0.00008	NL
Killer whale	WNA	67	0.00001	NL
Kogia spp	WNA	3,785	0.00079	NL
Mesoplodon spp	WNA	7,092	0.00954	NL
Pantropical spotted dolphin	WNA	3,333	0.00515	NL
Risso's dolphin	WNA	18,250	0.02202	NL
Rough-toothed dolphin	WNA	271	0.00060	NL
Short-beaked common dolphin	WNA	173,486	0.07284	NL
Short-finned pilot whale	WNA	21,515	0.02215	NL
Sperm whale	WNA	2,288	0.01274	EN
Spinner dolphin	WNA	262	0.00034	NL
Striped dolphin	WNA	54,807	0.13345	NL

[1] WNA = western north Atlantic.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 27—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 25, LABRADOR SEA

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Blue whale	WNA	440	0.00002	EN
Common minke whale	Canadian East Coast	20,741	0.00013	NL
Fin whale	Canadian East Coast	1,352	0.00005	EN
Humpback whale	West Indies DPS	12,312	0.00019	NL
North Atlantic right whale	WNA	476	<0.00001	EN
Sei whale	Labrador Sea	965	0.00002	EN
Atlantic white-sided dolphin	Labrador Sea	24,422	0.00200	NL
Harbor porpoise	Newfoundland	3,326	0.00160	NL
Killer whale	WNA	67	0.00001	NL
Long-finned pilot whale	Canadian East Coast	6,134	0.00370	NL
Northern bottlenose dolphin	Davis Strait	50	0.00001	NL
Short-beaked common dolphin	WNA	173,486	0.00100	NL
Sowerby's beaked whale	WNA	50	0.00001	NL
Sperm whale	WNA	2,288	0.00127	EN

TABLE 27—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 25, LABRADOR SEA—Continued

[Winter season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
White-beaked dolphin	Canadian East Coast	15,625	0.00077	NL
Arctic ringed seal	Arctic	787,000	0.07300	NL
Harp seal	WNA	7,411,000	0.07043	NL
Hooded seal	WNA	592,100	0.0081	NL

[1] WNA = western north Atlantic.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.

TABLE 28—ABUNDANCE AND DENSITY ESTIMATES FOR THE MARINE MAMMAL SPECIES, SPECIES GROUPS, AND STOCKS ASSOCIATED WITH MISSION AREA 26, SEA OF OKHOTSK

[Spring season]

Species	Stock name [1]	Abundance [2]	Density (animals/km^2) [3]	ESA status [4]
Bowhead whale	Okhotsk Sea	247	0.00001	EN
Common minke whale	WNP "O"	25,049	0.01727	NL
	WNP "J"	893	0.00062	EN
Fin whale	WNP	9,250	0.0002	EN
Humpback whale	WNP DPS	1,328	0.00089	EN
North Pacific right whale	WNP	922	[5] NA	EN
Western North Pacific gray whale	Western DPS	140	NA	EN
Baird's beaked whale	WNP	8,000	0.0015	NL
Beluga whale	Okhotsk Sea	12,226	0.0071	NL
Cuvier's beaked whale	WNP	90,725	0.0054	Nl
Dall's porpoise	WNP dalli-trype	111,402	0.18031	NL
	WNP truei-type	101,173	0.16375	NL
Harbor porpoise	WNP	31,046	0.0190	NL
Killer whale	Okhotsk-Kamchatka-Western Aleutians Transient.	12,256	0.0036	NL
Pacific white-sided dolphin	NP	931,000	0.0048	NL
Sperm whale	NP	102,112	0.0022	EN
Northern fur seal	Western Pacific	503,609	0.08031	NL
Okhotsk ringed seal	Okhotsk	676,000	0.23881	T
Pacific bearded seal	Okhotsk DPS	200,000	0.01174	T
Ribbon seal	Sea of Okhotsk	124,000	0.0904	NL
Spotted seal	Sea of Okhotsk DPS	180,000	0.2770	NL
Steller sea lion	Western DPS	82,516	0.02189	EN

[1] WNP = western north Pacific.
[2] Refer to Table 3–2 of the Navy's application for literature references associated with abundance estimates presented in this table.
[3] Refer to Table 3–2 of the Navy's application for literature references associated with density estimates presented in this table.
[4] ESA Status: EN = Endangered; T = Threatened; NL = Not Listed.
[5] NA in the Density column indicates that although the stock or DPS occurs in that mission area, it is not expected to occur during the season modeled.

Information on how the density and stock/abundance estimates were derived for the selected mission sites is in the Navy's application. These data are derived from the best available, published source documentation, and provide general area information for each mission area with species-specific information on the animals that could occur in that area, including estimates for their stock abundance and density. The Navy developed the abundance and density estimates by first using estimates from line-transect surveys that occurred in or near each of the 26 model sites (*e.g.,* Barlow, 2006). However, density estimates require more sophisticated sampling and analysis and were not always available for each species at all sites. When density estimates were not available from a survey in the operating area, the Navy extrapolated density estimates from a region with similar oceanographic characteristics to that operating area. For example, the eastern tropical Pacific has been extensively surveyed and provides a comprehensive understanding of marine mammals in temperate oceanic waters (Ferguson and Barlow, 2001, 2003). Density estimates for some mission areas/model sites were also derived from the Navy's Marine Species Density Database (DoN, 2016b). In addition, density estimates are usually not available for rare marine mammal species or for those that have been newly defined (*e.g.,* the Deraniyagala's beaked whale). For these species, the lowest density estimate of 0.0001 animals/square kilometer (0.0001 animals/km^2) was used in the take analysis to reflect the low probability of occurrence in a specific SURTASS LFA sonar mission area. Further, the Navy pooled density estimates for species of the same genus if sufficient data are not available to compute a density for individual species or the species are difficult to distinguish at sea, which is often the case for pilot whales and beaked whales, as well as the pygmy and dwarf sperm whales. Density estimates are available for these species

groups rather than the individual species.

The Navy provides detailed descriptions of the distribution, abundance, diving behavior, life history, and hearing vocalization information for each affected marine mammal species with confirmed or possible occurrence within SURTASS LFA sonar operational areas in section 4 (pages 4–1 through 4–71) of the application, which is available online at *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*).

Although not repeated in this document, NMFS has reviewed these data, determined them to be the best available scientific information for the proposed rulemaking, and considers this information part of the administrative record for this action. Additional information is available in NMFS' Marine Mammal Stock Assessment Reports, which may be viewed at *http://www.nmfs.noaa.gov/pr/sars/species.htm.* NMFS refers the public to Table 3–2 (pages 3–9 through 3–36) of the Navy's application for literature references associated with abundance and density estimates presented in these tables.

Brief Background on Sound, Marine Mammal Hearing, and Vocalization

Underwater Sound

An understanding of the basic properties of underwater sound is necessary to comprehend many of the concepts and analyses presented in this document. Sound is a wave of pressure variations propagating through a medium (for the sonar considered in this proposed rulemaking, the medium is seawater). 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/m^2). Acoustic intensity is rarely measured directly, it is derived from ratios of pressures; the standard reference pressure for underwater sound is 1 μPa (Richardson *et al.,* 1995).

Acousticians have adopted a logarithmic scale for sound intensities, which is denoted in dB. 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. Sound pressure level or SPL implies a decibel measure and a reference pressure that is used as the denominator of the ratio.

Sound frequency is measured in cycles per second, referred to as Hertz (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 large range of frequencies: From earthquake noise at five Hz to harbor porpoise clicks at 150,000 Hz (150 kilohertz (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, which is considered the low frequency bound of human hearing) and ultrasonic (typically above 20,000 Hz, which is considered the upper bound of human hearing) sounds, respectively. A single sound may be made up of multiple frequencies. 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 military sonars are an example of a narrowband sound source.

Metrics Used in This Document

This section includes a brief explanation of the sound measurements frequently used in the discussions of acoustic effects in this document.

Sound Pressure Level

Sound pressure level (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 decibels (dB) re: 1 μPa. SPL (in dB) = 20 log (pressure/reference pressure). SPL is an instantaneous measurement and can be expressed as the peak, the peak-peak (p-p), or the root mean square (rms). SPL does not directly take the duration of exposure to a sound into account, though it should be noted that the duration over which the root mean square pressure is averaged since it influences the result. Root mean square pressure, which is the square root of the arithmetic average of the squared instantaneous pressure values (Urick, 1983), is typically used in discussions of behavioral effects of sounds on vertebrates in part because behavioral effects, which often result from auditory cues, may be better expressed through averaged units than by peak pressures. All references to SPL in this document refer to the root mean square unless otherwise noted.

Cumulative Sound Exposure Level

Sound exposure level (SEL; represented as dB re 1 μPa^2-s) represents the total energy contained within a pulse, and considers both exposure level and duration of exposure. The NMFS 2016 Acoustic Technical Guidance builds upon the foundation provided by Southall *et al.* (2007), while incorporating new information available since development of that work (*e.g.,* Finneran, 2015). Southall *et al.* (2007) recommended specific thresholds under the dual metric approach (*i.e.,* peak SPL (SPL_{pk}) and cumulative SEL (SEL_{cum})), and that marine mammals be divided into hearing groups based on measured or estimated hearing ranges. The premise of the dual criteria approach is that, while there is no definitive answer to the question of which acoustic metric is most appropriate for assessing the potential for auditory injury, both the exposure level and duration of received signals are important to an understanding of the potential for injury. Therefore, peak SPL is used to define a pressure criterion above which auditory injury is predicted to occur, regardless of exposure duration (*i.e.,* any single exposure at or above this level is considered to cause auditory injury), and the SEL_{cum} metric is used to account for the total energy received over the specified duration of sound exposure (*i.e.,* metric accounts for both received level and duration of exposure) (Southall *et al.,* 2007; NMFS, 2016). As SPL_{pk} is applicable to impulsive noise, it is not applicable to SURTASS LFA sonar and is not discussed further here. Note that SEL_{cum} acoustic thresholds also incorporate marine mammal auditory weighting functions. NMFS (2016) recommends 24 hours as a maximum accumulation period relative to SEL_{cum} thresholds. For further discussion of auditory weighting functions and their application or metrics associated with evaluating noise-induced hearing loss, please see NMFS (2016). Table 29 displays auditory impact thresholds provided by NMFS (2016).

TABLE 29—TTS AND PTS ONSET THRESHOLDS FOR NON-IMPULSIVE SOUNDS [1]

Hearing group	Cumulative sound exposure level for TTS [1] (dB)	Cumulative sound exposure level for PTS [1] (dB)
Low-frequency cetaceans	179	199
Mid-frequency cetaceans	178	198
High-frequency cetaceans	153	173
Phoicid pinnipeds (PW) (Underwater)	181	201
Otariid pinnipeds (OW) (Underwater)	199	219

[1] Referenced to 1 μPa²s; weighted according to appropriate auditory weighting function.

Single Ping Equivalent (SPE)

To model potential behavioral impacts to marine animals from exposure to SURTASS LFA sonar sound, the Navy has developed a methodology to estimate the total exposure of modeled animals exposed to multiple pings over an extended period of time. The Navy's acoustic model analyzes the following components: (1) The LFA sonar source modeled as a point source, with an effective source level (SL) in dB re: 1 μPa at 1 m (SPL); (2) a 60-sec duration signal; and (3) a beam pattern that is correct for the number and spacing of the individual projectors (source elements). This source model, when combined with the three-dimensional transmission loss (TL) field generated by the Parabolic Equation (PE) acoustic propagation model, defines the received level (RL) (in SPL) sound field surrounding the source for a 60-sec LFA sonar signal (*i.e.,* the SPE metric accounts for received level and exposure from multiple pings). To estimate the total exposure of animals exposed to multiple pings, the Navy models the RLs for each modeled location and any computer-simulated marine mammals (animats) within the location, records the exposure history of each animat, and generates a SPE value. Thus, the Navy can model the SURTASS LFA sound field, providing a four-dimensional (position and time) representation of a sound pressure field within the marine environment and estimates of an animal's exposure to sound over a period of 24 hours.

Figure 2 shows the Navy calculation that converts SPL values to SPE values in order to estimate impacts to marine mammals from SURTASS LFA sonar transmissions. For a more detailed explanation of the SPE calculations, NMFS refers the public to Appendix B of the Navy's 2016 DSEIS/SOEIS.

Figure 2. Equation for SPE as a Function for SPL.

$$SPE = 5 \times \mathrm{Log}_{10} \left(\sum \left(10^{(P_N/10)}\right)^2 \right)$$

SPE is the single ping equivalent of the N received transmissions at the animal.

N is the number of received transmissions at the animal, and

P_N is the received level or pressure in in dB re: 1 μPa (in SPL) at the modeled animal for each received transmission

Marine Mammal Hearing

Cetaceans have an auditory anatomy that follows the basic mammalian pattern, with some changes to adapt to the demands of hearing in the sea. The typical mammalian ear is divided into an outer ear, middle ear, and inner ear. The outer ear is separated from the inner ear by a tympanic membrane, or eardrum. In terrestrial mammals, the outer ear, eardrum, and middle ear transmit airborne sound to the inner ear, where the sound waves are propagated through the cochlear fluid. Since the impedance of water (*i.e.,* the product of density and sound speed) is close to that of the tissues of a cetacean, the outer ear is not required to transduce sound energy as it does when sound waves travel from air to fluid (inner ear). Sound waves traveling through the inner ear cause the basilar membrane to vibrate. Specialized cells, called hair cells, respond to the vibration and produce nerve pulses that are transmitted to the central nervous system. Acoustic energy causes the basilar membrane in the cochlea to vibrate. Sensory cells at different positions along the basilar membrane are excited by different frequencies of sound (Pickles, 1998).

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) designated ''functional hearing groups'' for marine mammals and estimated the lower and upper frequencies of functional hearing (*i.e.,* the frequencies that the species can actually hear) of these groups as follows:

- Low frequency (LF) cetaceans (13 species of mysticetes): Southall *et al.* (2007) estimates that functional hearing occurs between approximately seven Hz and 22 kHz;
- Mid-frequency (MF) cetaceans (32 species of dolphins, six species of larger toothed whales, and 19 species of beaked and bottlenose whales): Southall *et al.* (2007) estimates that functional hearing occurs between approximately 150 Hz and 160 kHz;
- High frequency (HF) cetaceans (eight species of true porpoises, six species of river dolphins, *Kogia,* the franciscana, and four species of cephalorhynchid*s*): Southall *et al.* (2007) estimates that functional hearing

occurs between approximately 200 Hz and 180 kHz.

- Pinnipeds in Water: Southall *et al.* (2007) estimates that functional hearing occurs between approximately 75 Hz and 75 kHz, with the greatest sensitivity between approximately 700 Hz and 20 kHz.

In August 2016 NMFS released its Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NMFS 2016 Acoustic Technical Guidance), which modified the hearing groups proposed in Southall *et al.* (2007) in the following ways:

- Division of pinnipeds into phocids in water (PW) and otariids in water (OW) hearing groups; and
- Re-Categorization of two species of dolphins (hourglass [*Lagenorhynchus cruiger*] and Peale's [*L. australis*]) from mid-frequency (MF) to high-frequency (HF) hearing group.

Therefore, under the new NMFS 2016 Acoustic Technical Guidance, there are five marine mammal hearing group categories, with associated generalized hearing ranges as shown in Table 30 (note that animals are less sensitive to sounds at the outer edge of their generalized hearing range and most sensitive to sounds of frequencies within a smaller range somewhere in the middle of their functional hearing range).

TABLE 30—MARINE MAMMAL HEARING GROUPS

[NMFS, 2016]

Hearing group	Generalized hearing range [1]
Low-frequency (LF) cetaceans (baleen whales)	7 Hz to 35 kHz.
Mid-frequency (MF) cetaceans (dolphins, toothed whales, beaked whales, bottlenose whales)	150 Hz to 160 kHz.
High-frequency (HF) cetaceans (true porpoises, *Kogia,* river dolphins, cephalorhynchid, *Lagenorhynchus* cruciger & *L. australis*).	275 Hz to 160 kHz.
Phocid pinnipeds underwater (PW) (true seals)	50 Hz to 86 kHz.
Otariid pinnipeds underwater (OW) (sea lions and fur seals)	60 Hz to 39 kHz.

[1] Represents the generalized hearing range for the entire group as a composite (*i.e.,* all species within the group), where individual species' hearing ranges are typically not as broad. Generalized hearing range chosen based on ~65 dB threshold from normalized composite audiogram, with the exception for lower limits for LF cetaceans (Southall *et al.* 2007) and PW pinniped (approximation).

Marine Mammal Hearing Groups and LFA Sonar

Baleen (mysticete) whales (members of the LF hearing group) have inner ears that appear to be specialized for low-frequency hearing. Conversely, most odontocetes (*i.e.,* dolphins and porpoises) have inner ears that are specialized to hear mid and high frequencies. Pinnipeds, which lack the highly specialized active biosonar systems of odontocetes, have inner ears that are specialized to hear a broad range of frequencies in water (Southall *et al.,* 2007). Based on an extensive suite of reported laboratory measurements (DoN, 2001, Ketten, 1997, Southall *et al.,* 2007), the LFA sound source is below the range of best hearing sensitivity for MF and HF odontocete and pinnipeds in water hearing specialists (Clark and Southall, 2009).

Marine Mammal Vocalization

Marine mammal vocalizations often extend both above and below the range of human hearing (higher than 20 kHz and lower than 20 Hz; Research Council, 2003). Measured data on the hearing abilities of cetaceans are sparse, particularly for the larger cetaceans such as the baleen whales. The auditory thresholds of some of the smaller odontocetes have been determined in captivity. It is generally believed that cetaceans should at least be sensitive to the frequencies of their own vocalizations. Comparisons of the anatomy of cetacean inner ears and models of the structural properties and the response to vibrations of the ear's components in different species provide an indication of likely sensitivity to various sound frequencies. Thus, the ears of small toothed whales are optimized for receiving high-frequency sound, while baleen whale inner ears are best suited for low frequencies, including to infrasonic frequencies (Ketten, 1992; 1997; 1998).

Baleen whale (*i.e.,* mysticete) vocalizations are composed primarily of frequencies below one kHz, and some contain fundamental frequencies as low as 16 Hz (Watkins *et al.,* 1987; Richardson *et al.,* 1995; Rivers, 1997; Moore *et al.,* 1998; Stafford *et al.,* 1999; Wartzok and Ketten, 1999) but can be as high as 24 kHz (humpback whale; Au *et al.,* 2006). Clark and Ellison (2004) suggested that baleen whales use low frequency sounds not only for long-range communication, but also as a simple form of echo ranging, using echoes to navigate and orient relative to physical features of the ocean. Information on auditory function in mysticetes is limited. Sensitivity to low frequency sound by baleen whales has been inferred from observed vocalization frequencies, observed reactions to playback of sounds, and anatomical analyses of the auditory system. Although there is apparently much variation, the source levels of most baleen whale vocalizations lie in the range of 150–190 dB re: 1 µPa at 1 m. Low-frequency vocalizations made by baleen whales and their corresponding auditory anatomy suggest that they have good low-frequency hearing (Ketten, 2000), although specific data on sensitivity, frequency or intensity discrimination, or localization abilities are lacking. Marine mammals, like all mammals, have typical U-shaped audiograms that begin with relatively low sensitivity (high threshold) at some specified low frequency with increased sensitivity (low threshold) to a species-specific optimum followed by a generally steep rise at higher frequencies (high threshold) (Fay, 1988).

Toothed whales (*i.e.,* odontocetes) produce a wide variety of sounds, which include species-specific broadband ''clicks'' with peak energy between 10 and 200 kHz, individually variable ''burst pulse'' click trains, and constant frequency or frequency-modulated (FM) whistles ranging from 4 to 16 kHz (Wartzok and Ketten, 1999). The general consensus is that the tonal vocalizations (whistles) produced by toothed whales play an important role in maintaining contact between dispersed individuals, while broadband clicks are used during echolocation (Wartzok and Ketten, 1999). Burst pulses have also been strongly implicated in communication, with some scientists suggesting that they play an important role in agonistic encounters (McCowan and Reiss, 1995), while others have proposed that they represent ''emotive'' signals in a broader

sense, possibly representing graded communication signals (Herzing, 1996). Sperm whales, however, are known to produce only clicks, which are used for both communication and echolocation (Whitehead, 2003). Most of the energy of toothed whales' social vocalizations is concentrated near 10 kHz, with source levels for whistles as high as 100–180 dB re 1 µPa at 1 m (Richardson *et al.,* 1995). No odontocete has been shown audiometrically to have acute hearing (less than 80 dB re 1 µPa at 1 m) below 500 Hz (DoN, 2001; Ketten, 1998). Sperm whales produce clicks, which may be used to echolocate (Mullins *et al.,* 1988), with a frequency range from less than 100 Hz to 30 kHz and source levels up to 230 dB re 1 µPa at 1 m or greater (Mohl *et al.,* 2000).

Potential Effects of the Specified Activity on Marine Mammals and Their Habitat

This section includes a summary and discussion of the ways that components of the specified activities may impact marine mammals and their habitat. The Estimated Take of Marine Mammals section later in this document will include a quantitative analysis of the maximum percentage of the affected stocks that are expected to be taken by the SURTASS LFA activities, but enumeration of takes of individuals is completed annually when the Navy submits their application for LOAs for that year's mission areas. The Negligible Impact Analysis and Determination section will consider the content of this section, the Estimated Take of Marine Mammals section, and the Proposed Mitigation section to draw conclusions regarding the likely impacts of these activities on the reproductive success or survivorship of individuals and how those impacts on individuals are likely to impact marine mammal species or stocks.

The Navy has requested authorization for the incidental take of marine mammals that may result from upcoming use of SURTASS LFA sonar by a maximum of four U.S. Naval ships in certain areas of the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea. In addition to the use of LFA and HF/M3 sonar, the Navy has analyzed the potential impact of ship strike to marine mammals from SURTASS LFA sonar activities, and, in consultation with NMFS as a cooperating agency for the SURTASS LFA sonar 2016 DSEIS/SOEIS, has determined that take of marine mammals incidental to this non-acoustic component of the Navy's operations is not reasonably likely to occur. Therefore, the Navy has not requested authorization for take of marine mammals that might occur incidental to vessel ship strike. In this document, NMFS analyzes the potential effects on marine mammals from exposure to LFA and HF/M3 sonar, but also includes some additional analysis of the potential impacts from vessel operations.

NMFS' analysis of potential impacts from SURTASS LFA activities is outlined in the next section. NMFS will focus qualitatively on the different ways that SURTASS LFA sonar activities may affect marine mammals (some of which may not be classifiedas takes). Then, in the Estimated Take of Marine Mammals section, NMFS will relate the potential effects to marine mammals from SURTASS LFA sonar activities to the MMPA definitions of take, including Level A and Level B Harassment.

The potential effects to marine mammals described in the following sections do not take into consideration the proposed mitigation and related monitoring measures described later in this document (see the Proposed Mitigation section) which, as noted, are designed to effect the least practicable adverse impact on affected marine mammals species and stocks.

Potential Effects of Exposure to SURTASS LFA Sonar Activities

The potential effects of sound from the proposed activities associated with SURTASS LFA sonar might include one or more of the following: Behavioral changes, masking, non-auditory injury (*i.e.,* gas bubble formation/rectified diffusion), and noise-induced loss of hearing sensitivity (more commonly called threshold shift). NMFS discusses these potential effects in more detail below.

The effects of underwater noise on marine mammals are highly variable, and one can categorize the effects as follows (Richardson *et al.,* 1995; Nowacek *et al.,* 2007; Southall *et al.,* 2007):

(1) The noise may be too weak to be heard at the location of the animal (*i.e.,* lower than the prevailing ambient noise level, the hearing threshold of the animal at relevant frequencies, or both);

(2) The noise may be audible but not strong enough to elicit any overt behavioral response;

(3) The noise may elicit behavioral reactions of variable conspicuousness and variable relevance to the well-being of the animal. These can range from temporary alert responses to active avoidance reactions such as vacating an area at least until the noise event ceases, but potentially for longer periods of time;

(4) Upon repeated exposure, a marine mammal may exhibit diminishing responsiveness (habituation), disturbance effects may persist, or disturbance effects could increase (sensitization, or becoming more sensitive to exposure). Persistent disturbance and sensitization are more likely with sounds that are highly variable in characteristics, infrequent, and unpredictable in occurrence, and associated with situations that the animal perceives as a threat (animals are not likely to be exposed enough to SURTASS LFA sonar to exhibit habituation or increased sensitization, due to the fact that SURTASS LFA sonar is a mobile source operating in open water, and animals are likely to move away and/or would not be receiving pings in the way that small resident populations would receive with a stationary source);

(5) Any anthropogenic (human-made) noise that is strong enough to be heard has the potential to reduce the ability of a marine mammal to hear natural sounds at similar frequencies (masking), including calls from conspecifics (*i.e.,* an organism of the same species), and underwater environmental sounds such as surf noise;

(6) If mammals remain in an area because it is important for feeding, breeding, or some other biologically important purpose even though there is a chronic exposure to noise, it is possible that there could be noise-induced physiological stress. This might in turn have negative effects on the well-being or reproduction of the animals involved; and

(7) Very strong sounds have the potential to cause temporary or permanent reduction in hearing sensitivity, also known as threshold shift. In terrestrial mammals and presumably marine mammals, received sound levels must far exceed the animal's hearing threshold for there to be any temporary threshold shift (TTS) in its hearing ability. For transient sounds, the sound level necessary to cause TTS is inversely related to the duration of the sound. Received sound levels must be even higher for there to be the possibility of permanent hearing impairment. In addition, intense acoustic or explosive events (not relevant for this proposed activity) may cause trauma to tissues associated with organs vital for hearing, sound production, respiration and other functions. This trauma may include minor to severe hemorrhage.

Direct Physiological Effects

Threshold Shift (Noise-Induced Loss of Hearing)

When animals exhibit reduced hearing sensitivity within their auditory range (*i.e.,* sounds must be louder for an animal to detect them) following exposure to a sufficiently intense sound or a less intense sound for a sufficient duration, it is referred to as a noise-induced threshold shift (TS). An animal can experience a temporary threshold shift (TTS) and/or permanent threshold shift (PTS). TTS can last from minutes or hours to days (*i.e.,* there is recovery back to baseline/pre-exposure levels), can occur within a specific frequency range (*i.e.,* an animal might only have a temporary loss of hearing sensitivity within a limited frequency band of its auditory range), and can be of varying amounts (for example, an animal's hearing sensitivity might be reduced by only six dB or reduced by 30 dB). PTS is permanent (*i.e.,* there is incomplete recovery back to baseline/pre-exposure levels), but also can occur 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 TS: 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 can affect the amount of associated TS and the frequency range in which it occurs. Generally, the amount of TS, and the time needed to recover from the effect, increase as amplitude and duration of sound exposure increases. Human non-impulsive noise exposure guidelines are based on the assumption that exposures of equal energy (the same SEL) produce equal amounts of hearing impairment regardless of how the sound energy is distributed in time (NIOSH, 1998). Previous marine mammal TTS studies have also generally supported this equal energy relationship (Southall *et al.,* 2007). However, some more recent studies concluded that for all noise exposure situations the equal energy relationship may not be the best indicator to predict TTS onset levels (Mooney *et al.,* 2009a and 2009b; Kastak *et al.,* 2007). These studies highlight the inherent complexity of predicting TTS onset in marine mammals, as well as the importance of considering exposure duration when assessing potential impacts. Generally, with sound exposures of equal energy, those that were quieter (lower sound pressure level (SPL)) with longer duration were found to induce TTS onset at lower levels than those of louder (higher SPL) and shorter duration. Less TS will occur from intermittent sounds than from a continuous exposure with the same energy (some recovery can occur between intermittent exposures) (Kryter *et al.,* 1966; Ward, 1997; Mooney *et al.* 2009a, 2009b; Finneran *et al.* 2010). For example, one short but loud (higher SPL) sound exposure may induce the same impairment as one longer but softer (lower SPL) 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 or repeated 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; Lonsbury-Martin *et al.* 1987). However, in the case of the proposed SURTASS LFA sonar activities, animals are not expected to be exposed to levels high enough or durations long enough to result in PTS due to the nature of the activities. The potential for PTS becomes even more unlikely when mitigation measures are considered.

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. The NMFS 2016 Acoustic Technical Guidance, which was used in the assessment of effects for this action, compiled, interpreted, and synthesized the best available scientific information for noise-induced hearing effects for marine mammals to derive updated thresholds for assessing the impacts of noise on marine mammal hearing, as noted above. For cetaceans, published data on the onset of TTS are limited to the captive bottlenose dolphin, beluga, harbor porpoise, and Yangtze finless porpoise (summarized in Finneran, 2015). TTS studies involving exposure to SURTASS LFA or other low-frequency sonar (below 1 kHz) have never been conducted due to logistical difficulties of conducting experiments with low frequency sound sources. However, there are TTS measurements for exposures to other LF sources, such as seismic airguns. Finneran *et al.* (2015) suggest that the potential for airguns to cause hearing loss in dolphins is lower than previously predicted, perhaps as a result of the low-frequency content of airgun impulses compared to the high-frequency hearing ability of dolphins. For pinnipeds in water, measurements of TTS are limited to harbor seals, elephant seals, and California sea lions (summarized in Finneran, 2015).

Marine mammal hearing plays a critical role in communication with conspecifics and in 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 a time when communication is critical for successful mother/calf interactions could have more serious impacts if it were in the same frequency band as the necessary vocalizations and of a severity that impeded communication. The fact that animals exposed to high levels of sound that would be expected to result in this physiological response would also be expected to have behavioral responses of a comparatively more severe or sustained nature is potentially more significant than simple existence of a TTS. However, it is important to note that TTS could occur due to longer exposures to sound at lower levels so that a behavioral response may not be elicited.

Depending on the degree and frequency range, the effects of PTS on an animal could also range in severity, although it is considered generally more serious than TTS because it is a

permanent condition. Of note, reduced hearing sensitivity as a simple function of 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 some cost to the animal. There is no empirical evidence that exposure to SURTASS LFA sonar can cause PTS in any marine mammals, especially given the proximity to and duration that an animal would need to be exposed; instead the possibility of PTS has been inferred from studies of TTS on captive marine mammals (see Richardson *et al.,* 1995).

As stated in the Navy's DSEIS/SOEIS (section 4.2.3), results show that all hearing groups except LF cetaceans would need to be within 22 ft (7 m) for an entire LFA transmission (60 seconds) to potentially experience PTS. A LF cetacean would need to be within 135 ft (41 m) for an entire LFA transmission to potentially experience PTS. Based on the mitigation procedures used during SURTASS LFA sonar activities, and the fact that animals can be expected to move away from any disturbance, the chances of this occurring are negligible.

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 (*e.g.,* beaked whales) are theoretically predicted to induce greater supersaturation (Houser *et al.,* 2001b). A study of repetitive diving in trained bottlenose dolphins found no increase in blood nitrogen levels or formation of bubbles (Houser *et al.,* 2009). 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 the SURTASS LFA 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 a problematic size. Research with *ex vivo* supersaturated bovine tissues suggests that, for a 37 kHz signal, a sound exposure of approximately 215 dB re 1µPa would be required before microbubbles became destabilized and grew (Crum *et al.,* 2005). Furthermore, tissues in the study were supersaturated by exposing them to pressures of 400–700 kiloPascals for periods of hours and then releasing them to ambient pressures. Assuming the equilibration of gases with the tissues occurred when the tissues were exposed to high pressures, levels of supersaturation in the tissues could have been as high as 400–700 percent. These levels of tissue supersaturation are substantially higher than model predictions for marine mammals (Houser *et al.,* 2001; Saunders *et al.,* 2008). Both the degree of supersaturation and exposure levels observed to cause microbubble destabilization are unlikely to occur, either alone or in concert.

Yet another hypothesis (decompression sickness) speculates 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; Fernandez *et al.,* 2012). In this scenario, the rate of ascent would need to be sufficiently rapid to compromise behavioral or physiological protections against nitrogen bubble formation. Alternatively, Tyack *et al.* (2006) studied the deep diving behavior of beaked whales and concluded that: ''Using current models of breath-hold diving, we infer that their natural diving behavior is inconsistent with known problems of acute nitrogen supersaturation and embolism.'' Collectively, these hypotheses (rectified diffusion and decompression sickness) 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; Cox *et al.,* 2006; Rommel *et al.,* 2006). 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). Work conducted by Crum *et al.* (2005) demonstrated the possibility of rectified diffusion for short duration signals, but at exposure levels and tissue saturation levels that are highly improbable to occur in diving marine mammals. To date, energy levels predicted to cause in vivo bubble formations within diving cetaceans have not been evaluated (NOAA, 2002b). Although it has been argued that traumas from some beaked whale strandings are consistent with gas emboli and bubble-induced tissue separations (Jepson *et al.,* 2003), there is no conclusive evidence of this (Rommel *et al.,* 2006). However, Jepson *et al.* (2003, 2005) and Fernandez *et al.* (2004, 2005, 2012) 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 MF/HF active sonar exposures. This has not been demonstrated for LF sonar exposures, such as SURTASS LFA sonar.

In 2009, Hooker *et al.* tested two mathematical models to predict blood and tissue tension N2 (P_{N2}) using field data from three beaked whale species: Northern bottlenose whales, Cuvier's beaked whales, and Blainville's beaked whales. The researchers aimed to determine if physiology (body mass, diving lung volume, and dive response) or dive behavior (dive depth and duration, changes in ascent rate, and diel behavior) would lead to differences in P_{N2} levels and thereby decompression sickness risk between species.

In their study, they compared results for previously published time depth recorder data (Hooker and Baird, 1999; Baird *et al.,* 2006, 2008) from Cuvier's beaked whale, Blainville's beaked whale, and northern bottlenose whale. They reported that diving lung volume and extent of the dive response had a large effect on end-dive P_{N2}. Also, results showed that dive profiles had a larger influence on end-dive P_{N2} than body mass differences between species. Despite diel changes (*i.e.,* variation that occurs regularly every day or most days) in dive behavior, P_{N2} levels showed no consistent trend. Model output suggested that all three species live with tissue P_{N2} levels that would cause a significant proportion of decompression sickness cases in terrestrial mammals. The authors concluded that the dive behavior of Cuvier's beaked whale was different from both Blainville's beaked whale, and northern bottlenose whale, and resulted in higher predicted tissue

and blood N2 levels (Hooker *et al.,* 2009) and suggested that the prevalence of Cuvier's beaked whales stranding after naval sonar exercises could be explained by either a higher abundance of this species in the affected areas or by possible species differences in behavior and/or physiology related to MF active sonar (Hooker *et al.,* 2009).

Bernaldo de Quiros *et al.* (2012) showed that, among stranded whales, deep diving species of whales had higher abundances of gas bubbles compared to shallow diving species. Kvadsheim *et al.* (2012) estimated blood and tissue P_{N2} levels in species representing shallow, intermediate, deep diving cetaceans following behavioral responses to sonar and their comparisons found that deep diving species had higher end-dive blood and tissue N_2 levels, indicating a higher risk of developing gas bubble emboli compared with shallow diving species. Fahlmann *et al.* (2014) evaluated dive data recorded from sperm, killer, long-finned pilot, Blainville's beaked and Cuvier's beaked whales before and during exposure to low (1–2 kHz) and mid (2–7 kHz) frequency active sonar (note that SURTASS LFA sonar is transmitted between 100–500 Hz, which is well below the low frequency sonar in these studies) in an attempt to determine if either differences in dive behavior or physiological responses to sonar are plausible risk factors for bubble formation. The authors suggested that CO_2 may initiate bubble formation and growth, while elevated levels of N_2 may be important for continued bubble growth. The authors also suggest that if CO_2 plays an important role in bubble formation, a cetacean escaping a sound source may experience increased metabolic rate, CO_2 production, and alteration in cardiac output, which could increase risk of gas bubble emboli. However, as discussed in Kvadsheim *et al.* (2012), the actual observed behavioral responses to sonar from the species in their study (sperm, killer, long-finned pilot, Blainville's beaked, and Cuvier's beaked whales) did not imply any significantly increased risk of decompression sickness due to high levels of N_2. Therefore, further information is needed to understand the relationship between exposure to stimuli, behavioral response (discussed in more detail below), elevated N_2 levels, and gas bubble emboli in marine mammals. The hypotheses for gas bubble formation related to beaked whale strandings is that beaked whales potentially have strong avoidance responses to MF active sonars because they sound similar to their main predator, the killer whale (Cox *et al.,* 2006; Southall *et al.,* 2007; Zimmer and Tyack, 2007; Baird *et al.,* 2008; Hooker *et al.,* 2009). Further investigation is needed to assess the potential validity of these hypotheses. However, because SURTASS LFA sonar transmissions are lower in frequency (less than 500 Hz) and dissimilar in characteristics from those of marine mammal predators the SURTASS LFA sonar transmissions are not expected to cause gas bubble formation or beaked whale strandings.

To summarize, there are few data related to the potential for strong, anthropogenic underwater sounds to cause non-auditory physical effects in marine mammals. Such effects, if they occur at all, would presumably be limited situations where marine mammals were exposed to high powered sounds at close range over a prolonged period of time. The available data do not allow identification of a specific exposure level above which non-auditory effects can be expected (Southall *et al.,* 2007) or any meaningful quantitative predictions of the numbers (if any) of marine mammals that might be affected in those ways.

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 other sounds in the environment are of a similar frequency and are louder than auditory signals an animal is trying to receive. Masking is a phenomenon that affects animals 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 disrupt 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, the detection of frequencies above those of the masking stimulus decreases. 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 that low-frequency sounds 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 higher frequencies these cetaceans use to echolocate, but not at the low-to-moderate frequencies they use to communicate (Zaitseva *et al.,* 1980). A 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. Holt *et al.* (2009) measured killer whale call source levels and background noise levels in the one to 40 kHz band and reported that the whales increased their call source levels by one dB SPL for every one dB SPL increase in background noise level. Similarly, another study on St. Lawrence River belugas reported a similar rate of increase in vocalization activity in response to passing vessels (Scheifele *et al.,* 2005).

Parks *et al.* (2007) provided evidence of behavioral changes in the acoustic behaviors of the endangered North Atlantic right whale, and the South Atlantic right whale, and suggested that these were correlated to increased underwater noise levels. The study indicated that right whales might shift the frequency band of their calls to compensate for increased in-band background noise. The significance of their result is the indication of potential species-wide behavioral change in response to gradual, chronic increases in underwater ambient noise. Di Iorio and Clark (2010) showed that blue whale calling rates vary in association with seismic sparker survey activity, with whales calling more on days with

survey than on days without surveys. They suggested that the whales called more during seismic survey periods as a way to compensate for the elevated noise conditions.

Risch *et al.* (2012) documented reductions in humpback whale vocalizations in the Stellwagen Bank National Marine Sanctuary concurrent with transmissions of the Ocean Acoustic Waveguide Remote Sensing (OAWRS) low-frequency fish sensor system at distances of 200 km (124 mi) from the source. The recorded OAWRS produced a series of frequency modulated pulses and the signal received levels ranged from 88 to 110 dB re: 1 µPa (Risch, *et al.,* 2012). The authors hypothesized that individuals did not leave the area but instead ceased singing and noted that the duration and frequency range of the OAWRS signals (a novel sound to the whales) were similar to those of natural humpback whale song components used during mating (Risch *et al.,* 2012). Thus, the novelty of the sound to humpback whales in the study area provided a compelling contextual probability for the observed effects (Risch *et al.,* 2012). However, the authors did not state or imply that these changes had long-term effects on individual animals or populations (Risch *et al.,* 2012).

Redundancy and context can also facilitate detection of weak signals. These phenomena may help marine mammals detect weak sounds in the presence of natural or manmade noise. Most masking studies in marine mammals present the test signal and the masking noise from the same direction. The sound localization abilities of marine mammals suggest that, if signal and noise come from different directions, masking would not be as severe as some masking studies might suggest (Richardson *et al.,* 1995). The dominant background noise may be highly directional if it comes from a particular anthropogenic source such as a ship or industrial site. Directional hearing may significantly reduce the masking effects of these sounds by improving the effective signal-to-noise ratio.

As mentioned previously, the hearing ranges of mysticetes overlap with the frequencies of the SURTASS LFA sonar sources. The closer the characteristics of the masking signal to the signal of interest, the more likely masking is to occur. The Navy provided an analysis of marine mammal hearing and masking in Subchapter 4.2.2.1.4 of the DSEIS/SOEIS, and the masking effects of the SURTASS LFA sonar signal are expected to be limited for a number of reasons. First, the frequency range (bandwidth) of the system is limited to approximately 30 Hz, and the instantaneous bandwidth at any given time of the signal is small, on the order of 10 Hz. Second, the average duty cycle is always less than 20 percent and, based on past SURTASS LFA sonar operational parameters (2003 to 2016), is normally 7.5 to 10 percent. Third, given the average maximum pulse length (60 sec), and the fact that the signals vary and do not remain at a single frequency for more than 10 sec, SURTASS LFA sonar is not likely to cause significant masking. In other words, the LFA sonar transmissions are coherent, narrow bandwidth signals of six to 100 sec in length followed by a quiet period of six to 15 minutes. Therefore, the effect of masking will be limited because animals that use this frequency range typically use broader bandwidth signals. As a result, the chances of an LFA sonar sound actually overlapping whale calls at levels that would interfere with their detection and recognition will be extremely low.

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 they drop 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 apart 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 species that vocalize are able to adapt by adjusting 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 adjustments to vocalization characteristics such as the frequency structure, amplitude, temporal structure and temporal delivery.

Many animals will combine several of these strategies to compensate for high levels of background noise. Anthropogenic sounds which 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 communications 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 are not directly known in all instances, like most other trade-offs animals must make, some of these strategies probably come at a cost (Patricelli *et al.,* 2006). Shifting songs and calls to higher frequencies may also impose energetic costs (Lambrechts, 1996). For example in birds, 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).

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 sometimes 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 responses.

According to Moberg (2000), 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 hypothalmus-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 and Rivest, 1991), altered metabolism (Elasser *et al.,* 2000), reduced immune competence (Blecha, 2000), and behavioral disturbance (Moberg, 1987; Blecha, 2000). 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 functions, which impair those functions. For example, when a stress response diverts energy away from growth in young animals, those animals may experience stunted growth. When a stress response diverts energy from a fetus, an animal's reproductive success and 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. Note that these examples involve a long-term (days or weeks) stress response exposure to stimuli.

Relationships between these physiological mechanisms, animal behavior, and the costs of stress responses have also been documented fairly well through controlled experiments; 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; Thompson and Hamer, 2000).

There is limited information on the physiological responses of marine mammals to anthropogenic sound exposure, as most observations have been limited to short-term behavioral responses, which included cessation of feeding, resting, or social interactions. Information has been collected on the physiological responses of marine mammals to anthropogenic sounds (Fair and Becker, 2000; Romano *et al.,* 2002; Wright *et al.,* 2008), and various efforts have been undertaken to investigate the impact from vessels including whale watching vessels as well as general vessel traffic noise (Bain, 2002; Erbe, 2002; Noren *et al.,* 2009; Williams *et al.,* 2006, 2009, 2014a, 2014b; Read *et al.,* 2014; Rolland *et al.,* 2012; Pirotta *et al.,* 2015). This body of research for the most part has investigated impacts associated with the presence of chronic stressors, which differ significantly from the proposed Navy SURTASS LFA sonar activities. For example, in the analysis of energy costs to killer whales, Williams *et al.* (2009) suggested that whale-watching in Canada's Johnstone Strait resulted in lost feeding opportunities due to vessel disturbance, which could carry higher costs than other measures of behavioral change might suggest. Ayres *et al.* (2012) reported on research in the Salish Sea (state of Washington) involving the measurement of southern resident killer whale fecal hormones to assess two potential threats to the species recovery: Lack of prey (salmon) and impacts to behavior from vessel traffic. The authors suggested that the lack of prey overshadowed any population-level physiological impacts on southern resident killer whales from vessel traffic. Rolland *et al.* (2012) found that noise reduction from reduced ship traffic in the Bay of Fundy was associated with decreased stress in North Atlantic right whales. In a conceptual model developed by the Population Consequences of Acoustic Disturbance (PCAD) working group, serum hormones were identified as possible indicators of behavioral effects that are translated into altered rates of reproduction and mortality (NRC, 2005). The Office of Naval Research hosted a workshop (Effects of Stress on Marine Mammals Exposed to Sound) in 2009 that focused on this very topic (ONR, 2009). Ultimately, the PCAD working group issued a report (Cochrem, 2014) that summarized information compiled from 239 papers or book chapters relating to stress in marine mammals and concluded that stress responses can last from minutes to hours and, while we typically focus on adverse stress responses, stress response is part of a natural process to help animals adjust to changes in their environment and can also be either neutral or beneficial.

Despite the lack of robust information on stress responses for marine mammals exposed to anthropogenic sounds, studies of other marine and terrestrial animals 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 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 (*e.g.,* 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 communicate with conspecifics. Although empirical information on the relationship between sensory impairment (TTS, PTS, and acoustic masking) and stress in marine mammals remains limited, it is reasonable to assume that reducing an animal's ability to gather information about its environment and communicate with conspecifics could induce stress in animals that use hearing as their primary sensory mechanism. We also assume that acoustic exposures sufficient to trigger onset of PTS or TTS would be accompanied by physiological stress responses, because terrestrial animals exhibit those responses under similar conditions (NRC, 2003). More importantly, due to the effect of noise and the need to effectively gather acoustic information and respond, marine mammals might experience stress responses at received levels lower than those necessary to trigger onset of 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 associated with TTS.

Behavioral Response/Disturbance

Behavioral responses to sound are highly variable and context-specific. Many different variables can influence an animal's perception of, as well as the nature and magnitude of response to, an acoustic event. An animal's prior experience with a sound or sound source affects 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 the sound to biologically relevant sounds in the animal's environment (*i.e.,* calls of predators, prey, or conspecifics), and familiarity of the sound may affect the way an animal responds to the sound (Southall *et al.,* 2007; DeRuiter *et al.,* 2013). 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. For example, Goldbogen *et al.* (2013) demonstrated that individual behavioral state was critically important in determining response of blue whales to sonar, noting that individuals engaged in deep (>50 m) feeding behavior had greater dive responses than those in shallow feeding or non-feeding conditions. Some blue whales in the Goldbogen *et al.* (2013) study that were engaged in shallow feeding behavior demonstrated no clear changes in diving or movement even when RLs were high (~160 dB re 1µPa) for exposures to 3–4 kHz sonar signals, while others showed a clear response at exposures at lower RLs of sonar and pseudorandom noise.

Studies by DeRuiter *et al.* (2012) indicate that variability of responses to acoustic stimuli depends not only on the species receiving the sound and the sound source, but also on the social, behavioral, or environmental contexts of exposure. Another study by DeRuiter *et al.* (2013) examined behavioral responses of Cuvier's beaked whales to MF sonar and found that whales responded strongly at low received levels (RL of 89–127 dB re 1µPa) by ceasing normal fluking and echolocation, swimming rapidly away, and extending both dive duration and subsequent non-foraging intervals when the sound source was 3.4–9.5 km away. Importantly, this study also showed that whales exposed to a similar range of RLs (78–106 dB re 1µPa) from distant sonar exercises (118 km away) did not elicit such responses, suggesting that context may moderate reactions.

Ellison *et al.* (2012) outlined an approach to assessing the effects of sound on marine mammals that incorporates contextual-based factors. The authors recommend considering not just the received level of sound, but also the activity the animal is engaged in at the time the sound is received, the nature and novelty of the sound (*i.e.,* is this a new sound from the animal's perspective), and the distance between the sound source and the animal. They submit that this ''exposure context,'' as it is termed, greatly influences the type of behavioral response exhibited by the animal. This sort of contextual information is challenging to predict with accuracy for ongoing activities that occur over large spatial and temporal expanses. While contextual elements of this sort are typically not included in calculations to quantify take estimates of marine mammals, they are often considered qualitatively in the analysis of the likely consequences of sound exposure, where supporting information is available.

Friedlaender *et al.* (2016) provided the first integration of direct measures of prey distribution and density variables incorporated into across-individual analyses of behavior responses of blue whales to sonar, and demonstrated a 5-fold increase in the ability to quantify variability in blue whale diving behavior. These results illustrate that responses evaluated without such measurements for foraging animals may be misleading, which again illustrates the context-dependent nature of the probability of response.

Exposure of marine mammals to sound sources can result in, but is not limited to, no response or any of 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; avoidance; 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). More recent reviews (Nowacek *et al.,* 2007; DeRuiter *et al.,* 2012 and 2013; Ellison *et al.,* 2012) addressed studies conducted since 1995 and focused on observations where the received sound level of the exposed marine mammal(s) was known or could be estimated. In a review of experimental field studies to measure behavioral responses of cetaceans to sonar, Southall *et al.* (2016) states that results demonstrate that some individuals of different species display clear yet varied responses, some of which have negative implications, while others appear to tolerate high levels, and that responses may not be fully predicable with simple acoustic exposure metrics (*e.g.,* received sound level). Rather, the authors state that differences among species and individuals along with contextual aspects of exposure (*e.g.,* behavioral state) appear to affect response probability. The following subsections provide examples of behavioral responses that provide an idea of the variability in behavioral responses that would be expected given the different sensitivities of marine mammal species to sound and the wide range of potential acoustic sources to which a marine mammal may be exposed. Predictions about 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, along with contextual factors.

Alteration of Diving or Movement. 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, which they noted 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 the speed of approach, all 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 varied nature of behavioral effects and consequent difficulty in defining and predicting them. Lastly, as noted previously, DeRuiter *et al.* (2013) noted that distance from a sound source may moderate marine mammal reactions in their study of Cuvier's beaked whales showing the whales swimming rapidly and silently away when a sonar signal was 3.4–9.5 km away while showing no such reaction to the same signal when the signal was 118 km away even though the RLs were similar.

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 of western gray 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 SURTASS LFA sonar demonstrated no responses or change in foraging behavior that could be attributed to the low-frequency sounds (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 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.

Blue whales exposed to simulated mid-frequency sonar in the Southern California Bight were less likely to produce low frequency calls usually associated with feeding behavior (Melcón *et al.,* 2012). However, the authors were unable to determine if suppression of low frequency calls reflected a change in their feeding performance, or abandonment of foraging behavior and indicated that implications of the documented responses are unknown. Further, it is not known whether the lower rates of calling actually indicated a reduction in feeding behavior or social contact since the study used data from remotely deployed, passive acoustic monitoring buoys. In contrast, blue whales increased their likelihood of calling when ship noise was present, and decreased their likelihood of calling in the presence of explosive noise, although this result was not statistically significant (Melcón *et al.,* 2012). Additionally, the likelihood of an animal calling decreased with the increased received level of mid-frequency sonar, beginning at a SPL of approximately 110–120 dB re 1 µPa (Melcón *et al.,* 2012). Results from the 2010–2011 field season of an ongoing behavioral response study in Southern California waters indicated that, in some cases and at low received levels, tagged blue whales responded to mid-frequency sonar but that those responses were mild and there was a quick return to their baseline activity (Southall *et al.,* 2011; Southall *et al.,* 2012). Goldbogen *et al.,* (2013) monitored behavioral responses of tagged blue whales located in feeding areas when exposed to simulated MFA sonar. Responses varied depending on behavioral context, with deep feeding whales being more significantly affected (*i.e.,* generalized avoidance; cessation of feeding; increased swimming speeds; or directed travel away from the source) compared to surface feeding individuals that typically showed no change in behavior. Non-feeding whales also seemed to be affected by exposure. The authors indicate that disruption of feeding and displacement could impact individual fitness and health. However, for this to be true, we would have to assume that an individual whale could not compensate for this lost feeding opportunity by either immediately feeding at another location, by feeding shortly after cessation of acoustic exposure, or by feeding at a later time. There is no indication this is the case for the proposed SURTASS LFA sonar activities, particularly since unconsumed prey would likely still be available in the environment in most cases following the cessation of acoustic exposure. 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.

Social Relationships. Social interactions between mammals can be affected by noise via the disruption of communication signals or by the displacement of individuals. Sperm whales responded to military sonar, apparently from a submarine, by dispersing from social aggregations, moving away from the sound source, remaining relatively silent, and becoming difficult to approach (Watkins *et al.,* 1985). In contrast, sperm whales in the Mediterranean that were exposed to submarine sonar continued calling (J. Gordon pers. comm. cited in Richardson *et al.,* 1995). However, social disruptions must be considered in context of the relationships that are affected. While some disruptions may not have deleterious effects, others, such as long-term or repeated disruptions of mother/calf pairs or interruption of mating behaviors, have the potential to affect the growth and survival or reproductive effort/success of individuals.

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. Avoidance 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. However, longer term displacement is possible and can lead to changes in abundance or distribution patterns of the species in the affected region if animals do not become acclimated to the presence of the chronic 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 long-term or repetitive/chronic displacement for some dolphin groups and for manatees has been suggested to result from the presence of chronic vessel noise (Haviland-Howell *et al.,* 2007; Miksis-Olds *et al.,* 2007).

In 1998, the Navy conducted a Low Frequency Sonar Scientific Research Program (LFS SRP) specifically to study behavioral responses of several species of marine mammals to exposure to LF sound, including one phase that focused on the behavior of gray whales to low frequency sound signals. The objective of this phase of the LFS SRP was to determine whether migrating gray whales respond more strongly to received levels (RL), sound gradient, or distance from the source, and to compare whale avoidance responses to an LF source in the center of the migration corridor versus in the offshore portion of the migration corridor. A single source was used to broadcast LFA sonar sounds at RLs of 170–178 dB re 1μPa. The Navy reported that the whales showed some avoidance responses when the source was moored one mile (1.8 km) offshore, and located within in the migration path, but the whales returned to their migration path when they were a few kilometers beyond the source. When the source was moored two miles (3.7 km) offshore, responses were much less even when the source level was increased to achieve the same RLs in the middle of the migration corridor as whales received when the source was located within the migration corridor (Clark *et al.,* 1999). In addition, the researchers noted that the offshore whales did not seem to avoid the louder offshore source.

Also during the LFS SRP, researchers sighted numerous odontocete and pinniped species in the vicinity of the sound exposure tests with LFA sonar. The MF and HF hearing specialists present in the study area showed no immediately obvious responses or changes in sighting rates as a function of source conditions. Consequently, the researchers concluded that none of these species had any obvious behavioral reaction to LFA sonar signals at received levels similar to those that produced only minor short-term behavioral responses in the baleen whales (*i.e.,* LF hearing specialists). Thus, for odontocetes, the chances of injury and/or significant behavioral responses to SURTASS LFA sonar would be low given the MF/HF specialists' observed lack of response to LFA sounds during the LFS SRP and due to the MF/HF frequencies to which these animals are adapted to hear (Clark and Southall, 2009).

Maybaum (1993) conducted sound playback experiments to assess the effects of mid-frequency active sonar on humpback whales in Hawaiian waters. Specifically, she exposed focal pods to sounds of a 3.3-kHz sonar pulse, a sonar frequency sweep from 3.1 to 3.6 kHz, and a control (blank) tape while monitoring the behavior, movement, and underwater vocalizations. The two types of sonar signals differed in their effects on the humpback whales, but both resulted in avoidance behavior. The whales responded to the pulse by increasing their distance from the sound source and responded to the frequency sweep by increasing their swimming speeds and track linearity. In the Caribbean, sperm whales avoided exposure to mid-frequency submarine sonar pulses, in the range of 1000 Hz to 10,000 Hz (IWC 2005).

Kvadsheim *et al.,* (2007) conducted a controlled exposure experiment in which killer whales fitted with D-tags were exposed to mid-frequency active sonar (Source A: a 1.0 s upsweep 209 dB @1–2 kHz every 10 sec for 10 minutes; Source B: with a 1.0 s upsweep 197 dB @6–7 kHz every 10 sec for 10 min). When exposed to Source A, a tagged whale and the group it was traveling with did not appear to avoid the source. When exposed to Source B, the tagged whales, along with other whales that had been carousel feeding where killer whales cooperatively herd fish schools into a tight ball towards the surface and feed on the fish which have been stunned by tailslaps and subsurface feeding (Simila, 1997), ceased feeding during the approach of the sonar and moved rapidly away from the source. When exposed to Source B, Kvadsheim and his co-workers reported that a tagged killer whale seemed to try to avoid further exposure to the sound field by the following behaviors: Immediately swimming away (horizontally) from the source of the sound; engaging in a series of erratic and frequently deep dives that seemed to take it below the sound field; or swimming away while engaged in a series of erratic and frequently deep dives. Although the sample sizes in this study are too small to support statistical analysis, the behavioral responses of the orcas were consistent with the results of other studies.

In 2007, the first in a series of behavioral response studies (BRS) on deep diving odontocetes conducted by NMFS, Navy, and other scientists showed one beaked whale (*Mesoplodon densirostris*) responding to an MF active sonar playback. Tyack *et al.* (2011) indicates that the playback began when the tagged beaked whale was vocalizing at depth (at the deepest part of a typical feeding dive), following a previous control with no sound exposure. The whale appeared to stop clicking significantly earlier than usual, when

exposed to mid-frequency signals in the 130–140 dB (rms) received level range. After a few more minutes of the playback, when the received level reached a maximum of 140–150 dB, the whale ascended on the slow side of normal ascent rates with a longer than normal ascent, at which point the exposure was terminated. The results are from a single experiment and a greater sample size is needed before robust and definitive conclusions can be drawn.

Tyack *et al.* (2011) also indicate that Blainville's beaked whales (a resident species within the Tongue of the Ocean, Bahamas study area) appear to be sensitive to noise at levels well below the onset of expected TTS (approximately 160 dB re: 1μPa at 1 m). This sensitivity was manifested by an adaptive movement away from a sound source. This response was observed irrespective of whether the signal transmitted was within the band width of MF active sonar, which suggests that beaked whales may not respond to the specific sound signatures. Instead, they may be sensitive to any pulsed sound from a point source in the frequency range of the MF active sonar transmission. The response to such stimuli appears to involve the beaked whale increasing the distance between it and the sound source.

Southall *et al.* (2016) indicates that results from Tyack *et al.* (2011); Miller *et al.* (2015), Stimpert *et al.* (2014), and DeRuiter *et al.* (2013) all demonstrate clear, strong, and pronounced but varied behavioral changes including sustained avoidance with associated energetic swimming and cessation of feeding behavior at quite low received levels (~100 to 135 dB re 1Pa) for exposures to simulated or active MF military sonars (1 to 8 kHz) with sound sources approximately 2 to 5 km away.

In the 2010 BRS study, researchers again used controlled exposure experiments (CEE) to carefully measure behavioral responses of individual animals to sound exposures of MF active sonar and pseudo-random noise. For each sound type, some exposures were conducted when animals were in a surface feeding (approximately 164 ft (50 m) or less) and/or socializing behavioral state and others while animals were in a deep feeding (greater than 164 ft (50 m)) and/or traveling mode. The researchers conducted the largest number of CEEs on blue whales (n=19) and of these, 11 CEEs involved exposure to the MF active sonar sound type. For the majority of CEE transmissions of either sound type, they noted few obvious behavioral responses detected either by the visual observers or on initial inspection of the tag data. The researchers observed that throughout the CEE transmissions, up to the highest received sound level (absolute RMS value approximately 160 dB re: 1μPa with signal-to-noise ratio values over 60 dB), two blue whales continued surface feeding behavior and remained at a range of around 3,820 ft (1,000 m) from the sound source (Southall *et al.,* 2011). In contrast, another blue whale (later in the day and greater than 11.5 mi (18.5 km; 10 nmi) from the first CEE location) exposed to the same stimulus (MFA) while engaged in a deep feeding/travel state exhibited a different response. In that case, the blue whale responded almost immediately following the start of sound transmissions when received sounds were just above ambient background levels (Southall *et al.,* 2011). The authors note that this kind of temporary avoidance behavior was not evident in any of the nine CEEs involving blue whales engaged in surface feeding or social behaviors, but was observed in three of the ten CEEs for blue whales in deep feeding/travel behavioral modes (one involving MFA sonar; two involving pseudo-random noise) (Southall *et al.,* 2011). The results of this study, as well as the results of the DeRuiter *et al.* (2013) study of Cuvier's beaked whales discussed above, further illustrate the importance of behavioral context in understanding and predicting behavioral responses.

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 presences of predators have occurred (Connor and Heithaus, 1996). Flight responses have been speculated as being a component of marine mammal strandings associated with MF active sonar activities (Evans and England, 2001). If marine mammals respond to Navy vessels that are 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). In addition to the limited data on flight response for marine mammals, there are examples of this response in terrestrial species. For instance, the probability of flight responses in Dall's sheep *Ovis dalli dalli* (Frid, 2001), hauled-out ringed seals *Phoca hispida* (Born *et al.,* 1999), Pacific brant (*Branta bernicl nigricans*), and Canada geese (*B. Canadensis*) increased as a helicopter or fixed-wing aircraft more directly approached groups of these animals (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).

Breathing. Variations in respiration naturally occur with different behaviors. Variations in respiration rate as a function of acoustic exposure can 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 foraging 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, exposing 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 of understanding species differences in the tolerance of underwater noise when determining the potential for impacts resulting from anthropogenic sound exposure.

Continued Pre-disturbance Behavior and Habituation. Under some circumstances, some of the individual marine mammals that are exposed to active sonar transmissions will continue their normal behavioral activities. In other circumstances, individual animals will respond to sonar transmissions at lower received levels and move to avoid additional exposure or exposures at higher received levels (Richardson *et al.,* 1995).

It is difficult to distinguish between animals that continue their pre-disturbance behavior without stress responses, animals that continue their behavior but experience stress responses (that is, animals that cope with disturbance), and animals that habituate to disturbance (that is, they may have experienced low-level stress responses initially, but those responses abated over time). Watkins (1986) reviewed data on the behavioral reactions of fin, humpback, right and minke whales that were exposed to continuous, broadband

low-frequency shipping and industrial noise in Cape Cod Bay. He concluded that underwater sound was the primary cause of behavioral reactions in these species of whales and that the whales responded behaviorally to acoustic stimuli within their respective hearing ranges. Watkins also noted that whales showed the strongest behavioral reactions to sounds in the 15 Hz to 28 kHz range, although negative reactions (avoidance, interruptions in vocalizations, etc.) were generally associated with sounds that were either unexpected, too loud, suddenly louder or different, or perceived as being associated with a potential threat (such as an approaching ship on a collision course). In particular, whales seemed to react negatively when they were within 100 m of the source or when received levels increased suddenly in excess of 12 dB relative to ambient sounds. At other times, the whales ignored the source of the signal and all four species habituated to these sounds. Nevertheless, Watkins concluded that whales ignored most sounds in the background of ambient noise, including sounds from distant human activities even though these sounds may have had considerable energies at frequencies well within the whales' range of hearing. Further, he noted that of the whales observed, fin whales were the most sensitive of the four species, followed by humpback whales; right whales were the least likely to be disturbed and generally did not react to low-amplitude engine noise. By the end of his period of study, Watkins (1986) concluded that fin and humpback whales have generally habituated to the continuous and broad-band noise of Cape Cod Bay while right whales did not appear to change their response. As mentioned above, animals that habituate to a particular disturbance may have experienced low-level stress responses initially, but those responses abated over time. In most cases, this likely means a lessened immediate potential effect from a disturbance. However, there is cause for concern where the habituation occurs in a potentially more harmful situation. For example, animals may become more vulnerable to vessel strikes once they habituate to vessel traffic (Swingle *et al.,* 1993; Wiley *et al.,* 1995).

Aicken *et al.* (2005) monitored the behavioral responses of marine mammals to a new low-frequency active sonar system used by the British Navy (the United States Navy considers this to be a mid-frequency source as it operates at frequencies greater than 1,000 Hz). During those trials, fin whales, sperm whales, Sowerby's beaked whales, long-finned pilot whales, Atlantic white-sided dolphins, and common bottlenose dolphins were observed and their vocalizations were recorded. These monitoring studies detected no evidence of behavioral responses that the investigators could attribute to exposure to the low-frequency active sonar during these trials.

Southall *et al.* (2007) 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 no quantitative criteria were recommended for behavioral responses. 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. LFA sonar is considered a non-pulse sound. Southall *et al.* (2007) summarizes 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 following paragraphs).

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, 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 µPa range and an increasing likelihood of avoidance and other behavioral effects in the 120 to 160 dB re: 1 µPa range. As mentioned earlier, though, contextual variables play a very important role in the reported responses, and the severity of effects are not necessarily linear when compared to a 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 including: Pingers, drilling playbacks, ship and ice-breaking noise, vessel noise, Acoustic Harassment Devices (AHDs), Acoustic Deterrent Devices (ADDs), MF active sonar, 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 re: 1 µPa, while in other cases these responses were not seen in the 120 to 150 dB re: 1 µPa 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 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 (approximately 90–120 dB re: 1 µPa), at least for initial exposures. All recorded exposures above 140 dB re: 1 µPa 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 are no data to indicate whether other high-frequency cetaceans are as sensitive to anthropogenic sound as harbor porpoises.

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 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 this analysis. The limited data suggest that exposure to non-pulse sounds between 90 and 140

dB re: 1 µPa generally do not result in strong behavioral responses of pinnipeds in water, but no data exist at higher received levels.

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 fitness (survival, reproduction, etc.) of an animal. There are few quantitative marine mammal data relating the exposure of marine mammals to sound to effects on reproduction or survival, though data exist for terrestrial species to which we can draw comparisons for marine mammals. Several authors have reported that disturbance stimuli cause animals to abandon nesting and foraging sites (Sutherland and Crockford, 1993); cause animals to increase their activity levels and suffer premature deaths or reduced reproductive success when their energy expenditures exceed their energy budgets (Daan *et al.,* 1996; Feare, 1976; Mullner *et al.,* 2004); or cause animals to experience higher predation rates when they adopt risk-prone foraging or migratory strategies (Frid and Dill, 2002). Each of these studies addressed the consequences of animals shifting from one behavioral state (*e.g.,* resting or foraging) to another behavioral state (*e.g.,* avoidance or escape behavior) because of human disturbance or disturbance stimuli.

One consequence of behavioral avoidance results in the altered energetic expenditure of marine mammals because energy is required to move and avoid surface vessels or the sound field associated with active sonar (Frid and Dill, 2002). Most animals can avoid that energetic cost by swimming away at slow speeds or speeds that minimize the cost of transport (Miksis-Olds, 2006), as has been demonstrated in Florida manatees (Miksis-Olds, 2006).

Those energetic costs increase, however, when animals shift from a resting state, which is designed to conserve an animal's energy, to an active state that consumes energy the animal would have conserved had it not been disturbed. Marine mammals that have been disturbed by anthropogenic noise and vessel approaches are commonly reported to shift from resting to active behavioral states, which would imply that they incur an energy cost.

Morete *et al.,* (2007) reported that undisturbed humpback whale cows that were accompanied by their calves were frequently observed resting while their calves circled them (milling). When vessels approached, the amount of time cows and calves spent resting and milling, respectively, declined significantly. These results are similar to those reported by Scheidat *et al.* (2004) for the humpback whales they observed off the coast of Ecuador.

Constantine and Brunton (2001) reported that bottlenose dolphins in the Bay of Islands, New Zealand engaged in resting behavior just five percent of the time when vessels were within 300 m, compared with 83 percent of the time when vessels were not present. However, Heenehan *et al.* (2016) report that results of a study of the response of Hawaiian spinner dolphins to human disturbance suggest that the key factor is not the sheer presence or magnitude of human activities, but rather the directed interactions and dolphin-focused activities that elicit responses from dolphins at rest. This information again illustrates the importance of context in regard to whether an animal will respond to a stimulus. Miksis-Olds (2006) and Miksis-Olds *et al.* (2005) reported that Florida manatees in Sarasota Bay, Florida, reduced the amount of time they spent milling and increased the amount of time they spent feeding when background noise levels increased. Although the acute costs of these changes in behavior are not likely to exceed an animal's ability to compensate, the chronic costs of these behavioral shifts are uncertain.

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 (*e.g.,* 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 treating the stimulus as a disturbance and responding accordingly, which includes scanning for the source of the stimulus or ''vigilance'' (Cowlishaw *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 attend to cues from prey (Bednekoff and Lima, 1998; Treves, 2000). Despite those benefits, vigilance comes at a cost; 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 (*e.g.,* multiple surface vessels), or when they co-occur with times that an animal perceives increased risk (*e.g.,* when they are giving birth or accompanied by a calf). Most of the published literature suggests that direct approaches will increase the amount of time animals will dedicate to being vigilant. An example of this concept with terrestrial species involved bighorn sheep and Dall's sheep, which dedicated more time to being vigilant, and less time resting or foraging, when aircraft made direct approaches over them (Frid, 2001). Vigilance has also been documented in pinnipeds at haul out sites where resting may be disturbed when seals become alerted and/or flush into the water due to a variety of disturbances, which may be anthropogenic (noise and/or visual stimuli) or due to other natural causes such as other pinnipeds (Richardson *et al.,* 1995; Southall *et al.,* 2007; VanBlaricom, 2010; and Lozano and Hente, 2014).

Several authors have established that long-term and intense disturbance stimuli can cause population effects by reducing the physical condition of individuals that have been disturbed, followed by reduced reproductive success, reduced survival, or both (Daan *et al.,* 1996; Madsen, 1994; White, 1985). 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 had a 17 percent reproductive success rate. Similar reductions in reproductive success have been reported for other non-marine mammal species; for example, mule deer (*Odocoileus hemionus*) disturbed by all-terrain vehicles (Yarmoloy *et al.,* 1988), caribou (*Rangifer tarandus caribou*) disturbed by seismic exploration blasts (Bradshaw

et al., 1998), and caribou disturbed by low-elevation military jet flights (Luick *et al.,* 1996; 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, reducing the time they might spend foraging and resting (which increases an animal's activity rate and energy demand while decreasing their caloric intake/energy). As an example of this concept with terrestrial species involved, a study of grizzly bears (*Ursus horribilis*) reported that bears disturbed by hikers reduced their energy intake by an average of 12 kilocalories/min (50.2 $\times 10^3$ kiloJoules/min), and spent energy fleeing or acting aggressively toward hikers (White *et al.,* 1999). Alternately, Ridgway *et al.,* (2006) reported that increased vigilance in captive bottlenose dolphins exposed to sound over a five-day period in open-air, open-water enclosures in San Diego Bay 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). Behavioral reactions to noise exposure (such as disruption of critical life functions, displacement, or avoidance of important habitat) are more likely to be significant for fitness 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 significant unless it could directly affect reproduction or survival (Southall *et al.,* 2007). It is important to note the difference between behavioral reactions lasting or recurring over multiple days and anthropogenic activities lasting or recurring over multiple days. For example, at-sea SURTASS LFA sonar missions last for multiple days, but this does not necessarily mean individual animals will be exposed to those exercises for multiple days or exposed in a manner that would result in a sustained behavioral response.

In order to understand how the effects of activities may or may not impact species and stocks of marine mammals, it is necessary to understand not only what the likely disturbances are going to be, but how those disturbances are likely to affect the reproductive success and survivorship of individuals, and then how those impacts to individuals translate to population-level effects. Following on the earlier work of a committee of the U.S. National Research Council (NRC, 2005), an effort by New *et al.* (2014) termed ''Potential Consequences of Disturbance (PCoD)'' outlined an updated conceptual model of the relationships linking disturbance to changes in behavior and physiology, health, vital rates, and population dynamics. In this framework, behavioral and physiological changes can have direct (acute) effects on vital rates, such as when changes in habitat use or increased stress levels raise the probability of mother-calf separation or predation; they can have indirect and long-term (chronic) effects on vital rates, such as when changes in time/energy budgets or increased disease susceptibility affect health, which then later affect vital rates; or they can have no effect to vital rates. In addition to outlining this general framework and compiling the relevant literature that supports it, the authors chose four example species for which extensive long-term monitoring data exist (southern elephant seals, North Atlantic right whales, Ziphidae beaked whales, and bottlenose dolphins) and developed state-space energetic models that can be used to effectively forecast longer-term, population-level impacts to these species from behavioral changes. While these are very specific models with specific data requirements that cannot yet be applied to project-specific risk assessments or for the majority of species, they are a critical first step towards being able to quantify the likelihood of a population level effect.

Stranding and Mortality

The definition for a stranding under the MMPA 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, biotoxicosis, 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; Fair and Becker, 2000; Moberg, 2000; Relyea, 2005a; 2005b, Romero, 2004; Sih *et al.,* 2004).

In 1992, Congress amended the MMPA to establish the Marine Mammal Health and Stranding Response Program (MMHSRP) under authority of NMFS. The MMHSRP was created out of concern over marine mammal mortalities, to formalize the stranding response process, to focus efforts being initiated by numerous local stranding organizations, and as a result of public concern.

Strandings Associated With Active Sonar

Several sources have published lists of mass stranding events of cetaceans in an attempt 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) concluded that, out of eight stranding events reported from the mid-1980s to the summer of 2003, most had been coincident with the use of tactical MF active sonar and most involved beaked whales. Differences between tactical MF sonar and SURTASS LFA sonar, as well as the potential for strandings due to SURTASS LFA sonar, are addressed further below.

To date, there have been five stranding events coincident with military MF active sonar use for which NMFS and Navy concluded the exposure to sonar was likely a contributing factor to strandings: Greece (1996); the Bahamas (2000); Madeira (2000); Canary Islands (2002); and Spain (2006). NMFS refers the reader to DoN (2013) for a report on these strandings

associated with Navy sonar activities; Cox *et al.* (2006) for a summary of common features shared by the strandings events in Greece (1996), Bahamas (2000), Madeira (2000), and Canary Islands (2002); and Fernandez *et al.,* (2005) for an additional summary of the Canary Islands 2002 stranding event. Additionally, in 2004, during the Rim of the Pacific (RIMPAC) exercises, between 150 and 200 usually pelagic melon-headed whales occupied the shallow waters of the Hanalei Bay, Kaua'i, Hawaii for over 28 hours. NMFS determined that the mid-frequency sonar was a plausible, if not likely, contributing factor in what may have been a confluence of events that led to the Hanalei Bay stranding. A number of other stranding events coincident with the operation of MF active 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. Only one of the events listed above was coincident with an exercise conducted by the U.S. Navy.

Potential for Stranding From LFA Sonar

There is no empirical evidence of strandings of marine mammals associated with the employment of SURTASS LFA sonar since its use began in the early 2000s. Moreover, both the system acoustic characteristics and the operational parameters differ between SURTASS LFA sonar and MFA sonars. SURTASS LFA sonars use frequencies generally below 1,000 Hz, with relatively long signals (pulses) on the order of 60 sec; while MF sonars use frequencies greater than 1,000 Hz, with relatively short signals on the order of 1 sec. SURTASS LFA sonars involve use of one slower-moving vessel operating far from shore, as opposed to the faster-moving, multi-vessel MFA sonar training scenarios operating in closer proximity to shore that have been co-incident with strandings.

As discussed previously, Cox *et al.* (2006) provided a summary of common features shared by the stranding events related to MF sonar in Greece (1996), Bahamas (2000), and Canary Islands (2002). These included deep water close to land (such as offshore canyons), presence of an acoustic waveguide (surface duct conditions), and periodic sequences of transient pulses (*i.e.,* rapid onset and decay times) generated at depths less than 32.8 ft (10 m) by sound sources moving at speeds of 2.6 m/s (5.1 knots) or more during sonar operations (D'Spain *et al.,* 2006). These features are not similar to LFA sonar activities. First, the Navy will not operate SURTASS LFA sonar such that RLs are greater than 180 dB within 22 km of any coastline, ensuring that sound levels are at reduced levels at a sufficient distance from land. Secondly, when transmitting, the ship typically operates at 1.5–2.5 m/s (3–5 knots), speeds that are less than those found in Cox *et al.* (2009). Finally, the center of the vertical line array (source) is at a depth of approximately 400 ft (121.9 m), reducing the sounds that are transmitted at depths above 32.8 ft (10 m). For these reasons, SURTASS LFA sonar cannot be operated in deep water that is close to land. Also, the LFA sonar signal is transmitted at depths well below 32.8 ft (10 m). While there was an LF component in the Greek stranding in 1996, only MF components were present in the strandings in the Bahamas in 2000, Madeira in 2000, and the Canary Islands in 2002. The International Council for the Exploration of the Sea (ICES) in its ''Report of the Ad-Hoc Group on the Impacts of Sonar on Cetaceans and Fish'' raised the same issues as Cox *et al.,* (2006) stating that the consistent association of MF sonar in the Bahamas, Madeira, and Canary Islands strandings suggest that it was the MF component, not the LF component, in the NATO sonar that triggered the Greek stranding of 1996 (ICES, 2005). The ICES (2005) report concluded that no strandings, injury, or major behavioral change have been associated with the exclusive use of LF sonar.

Potential Effects of Vessel Movement and Collisions

Vessel movement in the vicinity of marine mammals has the potential to result in either a behavioral response or a direct physical interaction. Both scenarios are discussed below.

Behavioral Responses to Vessels (Movement and Noise)

There are limited data concerning marine mammal behavioral responses to vessel traffic and vessel noise, and a lack of consensus among scientists with respect to what these responses mean or whether they result in short-term or long-term adverse effects. As discussed previously, behavioral responses are context-dependent, complex, and influenced to varying degrees by a number of factors. For example, an animal may respond differently to a sound emanating from a ship that is moving towards the animal than it would to an identical received level coming from a vessel that is moving away, or to a ship traveling at a different speed or at a different distance from the animal. In cases where vessels actively approach marine mammals (*e.g.,* whale watching or dolphin watching boats), scientists have documented that animals exhibit altered behavior such as increased swimming speed, erratic movement, and active avoidance behavior (Bursk, 1983; Acevedo, 1991; Baker and MacGibbon, 1991; Trites and Bain, 2000; Constantine *et al.,* 2003), reduced blow interval (Ritcher *et al.,* 2003), disruption of normal social behaviors (Lusseau, 2003; 2006), and the shift of behavioral activities which may increase energetic costs (Constantine *et al.,* 2003; 2004; Heenehan *et al.,* 2016)). However, at greater distances, the nature of vessel movements could also potentially have no, or very little, effect on the animal's response to the sound. In those cases where there is a busy shipping lane or a large amount of vessel traffic, marine mammals may experience acoustic masking (Hildebrand, 2005) if they are present in the area (*e.g.,* killer whales in Puget Sound; Foote *et al.,* 2004; Holt *et al.,* 2008). In any case, a full description of the suite of factors that elicited a behavioral response would require a mention of the vicinity, speed and movement of the vessel, and other factors. A detailed review of marine mammal reactions to ships and boats is available in Richardson *et al.* (1995). For each of the marine mammal taxonomy groups, Richardson *et al.* (1995) provides the following assessment regarding cetacean reactions to vessel traffic:

Toothed whales: Toothed whales sometimes show no avoidance reaction to vessels, and may even approach them; however, avoidance can occur, especially in response to vessels of types used to chase or hunt the animals. Such avoidance may cause temporary displacement, but we know of no clear evidence of toothed whales abandoning significant parts of their range because of vessel traffic.

Baleen whales: Baleen whales seem to ignore low-level sounds from distant or stationary vessels, and some whales even approach the sources of these sounds. When approached slowly and non-aggressively, whales often exhibit slow and inconspicuous avoidance maneuvers. However, in response to strong or rapidly changing vessel noise, baleen whales often interrupt their normal behavior and swim rapidly away, and avoidance is especially strong when a boat heads directly toward the whale.

Behavioral responses to stimuli are complex and influenced to varying degrees by a number of factors, such as species, behavioral contexts, geographical regions, source

characteristics (moving or stationary, speed, direction, etc.), prior experience of the animal and physical status of the animal. For example, studies have shown that beluga whales' reactions varied when exposed to vessel noise and traffic. In some cases, naive beluga whales exhibited rapid swimming from ice-breaking vessels up to 80 km (49.7 mi) away, and showed changes in surfacing, breathing, diving, and group composition in the Canadian high Arctic where vessel traffic is rare (Finley *et al.,* 1990). In other cases, beluga whales were more tolerant of vessels, but responded differentially to certain vessels and operating characteristics by reducing their calling rates (especially older animals) in the St. Lawrence River where vessel traffic is common (Blane and Jaakson, 1994). In Bristol Bay, Alaska, beluga whales continued to feed when surrounded by fishing vessels and resisted dispersal even when purposefully harassed (Fish and Vania, 1971).

In reviewing more than 25 years of whale observation data, Watkins (1986) concluded that whale reactions to vessel traffic were ''modified by their previous experience and current activity: habituation often occurred rapidly, attention to other stimuli or preoccupation with other activities sometimes overcame their interest or wariness of stimuli.'' Watkins noticed that over the years of exposure to ships in the Cape Cod area, minke whales changed from frequent positive interest (*e.g.,* approaching vessels) to generally uninterested reactions; fin whales changed from mostly negative (*e.g.,* avoidance) to uninterested reactions; right whales apparently continued the same variety of responses (negative, uninterested, and positive responses) with little change; and humpbacks dramatically changed from mixed responses that were often negative to reactions that were often strongly positive. Watkins (1986) summarized that whales near shore generally have become less wary of boats and their noises, and they have appeared to be less easily disturbed, even in regions with low vessel traffic. In locations with intense shipping and repeated approaches by boats (such as the whale-watching areas), more whales had positive reactions to familiar vessels, and they also occasionally approached other boats and yachts in the same ways.

Although the radiated sound from Navy vessels will be audible to marine mammals over a large distance, it is unlikely that animals will respond behaviorally (in a manner that NMFS would consider indicative of harassment under the MMPA) to low-level distant ship noise as the animals in the area are likely to be habituated to such noises (Nowacek *et al.,* 2004). In addition, given the ship movement in the water and the fact that it is not idle in one spot nor necessarily encircling to contain animals, a significant disruption of normal behavioral pattern that would make ship movements rise to the level of take by Level B harassment is unlikely. In light of these facts, NMFS does not expect the movements of the Navy's SURTASS LFA sonar vessels to result in take by Level B harassment.

Vessel Strike

Ship strikes of cetaceans can cause immediate death or major injury, which may eventually lead to the death of the animal. An animal at the surface could be struck directly by a vessel, a surfacing animal could hit the bottom of a vessel, or an animal just below the surface could be cut by a vessel's propeller. The severity of injuries typically depends on the size and speed of the vessel (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Vanderlaan and Taggart, 2007).

The most vulnerable marine mammals are those that spend extended periods of time at the surface, often to restore oxygen levels within their tissues after deep dives (*e.g.,* the sperm whale). In addition, some large, slow moving baleen whales, such as the North Atlantic right whale, seem generally unresponsive to vessel sound, making them more susceptible to vessel collisions (Nowacek *et al.,* 2004). Some smaller marine mammals (*e.g.,* bottlenose dolphin) move quickly through the water column and purposefully approach ships to ride the bow wave of large ships without any injury.

An examination of all known ship strikes from all shipping sources (civilian and military) indicates vessel speed is a principal factor in whether a vessel strike results in death (Knowlton and Kraus, 2001; Laist *et al.,* 2001; Jensen and Silber, 2003; Vanderlaan and Taggart, 2007). In assessing records in which vessel speed was known, Laist *et al.* (2001) found a direct relationship between the occurrence of a whale strike and the speed of the vessel involved in the collision, with most deaths occurring when a vessel was traveling in excess of 14.9 mph (24.1 km/hr;13 kts).

Jensen and Silber (2004) detailed 292 records of known or probable ship strikes of all large whale species from 1975 to 2002. Of these, vessel speed at the time of collision was reported for 58 cases. Of these cases, 39 (or 67 percent) resulted in serious injury or death (19 of those resulted in serious injury as determined by blood in the water; propeller gashes or severed tailstock, and fractured skull, jaw, vertebrae; hemorrhaging; massive bruising or other injuries noted during necropsy and 20 resulted in death). Operating speeds of vessels that struck various species of large whales ranged from 2 to 51 kts, with the majority (79 percent) of these strikes occurring at speeds of 13 kts or greater. The average speed that resulted in serious injury or death was 18.6 kts. Pace and Silber (2005) found that the probability of death or serious injury increased rapidly with increasing vessel speed. Specifically, the predicted probability of serious injury or death increased from 45 percent to 75 percent as vessel speed increased from 10 to 14 kts, and exceeded 90 percent at 17 kts. Higher speeds during collisions result in greater force of impact, but higher speeds also appear to increase the chance of severe injuries or death by pulling whales toward the vessel. While modeling studies have suggested that hydrodynamic forces pulling whales toward the vessel hull increase with increasing vessel speed (Clyne, 1999; Knowlton *et al.,* 1995), this is inconsistent with Silber *et al.* (2010), which demonstrated that there is no such relationship (*i.e.,* hydrodynamic forces are independent of speed).

The Jensen and Silber (2004) report notes that the database represents a minimum number of collisions, because the vast majority probably goes undetected or unreported. In contrast, Navy vessels are likely to detect any strike that does occur, and they are required to report all ship strikes involving marine mammals. Overall, the percentage of Navy vessel traffic relative to overall large shipping vessel traffic is very small (on the order of two percent). Moreover, as mentioned previously, there are only four SURTASS LFA sonar vessels operating worldwide, which would equate to an extremely small percentage of the total vessel traffic.

The Navy's operation of up to four SURTASS LFA sonar vessels worldwide is extremely small in scale compared to the number of commercial ships transiting at higher speeds in the same areas on an annual basis. The probability of vessel and marine mammal interactions occurring during SURTASS LFA sonar activities is unlikely due to the surveillance vessel's slow operational speed, which is typically 3.4 mph (5.6 km/hr; 3 kts). Outside of SURTASS LFA sonar activities, each vessel's cruising speed would be a maximum of approximately 11.5 to 14.9 mph (18.5 to 24.1 km/hr; 10

to 13 kts) which is generally below the speed at which studies have noted reported increases of marine mammal injury or death (Laist *et al.,* 2001). Second, NMFS proposes to require the Navy to restrict the operation of SURTASS LFA vessels at a distance of 1 km (0.62 mi; 0.54 nmi) seaward of the outer perimeter of any OBIA designated for marine mammals during a specified period, further minimizing the potential for marine mammal interactions. Also, the Navy would not operate SURTASS LFA vessels a distance of 22 km (13. mi; 12 nmi) or less of any coastline, including islands, thus operating in offshore coastal areas where lower densities of marine mammals would minimize potential for vessel interactions.

As a final point, the SURTASS LFA surveillance vessels have a number of other advantages for avoiding ship strikes as compared to most commercial merchant vessels, including the following: The catamaran-type split hull shape and enclosed propeller system of the Navy's T–AGOS ships; the bridge of T–AGOS ships positioned forward of the centerline, offering good visibility ahead of the bow and good visibility aft to visually monitor for marine mammal presence; lookouts posted during activities scan the ocean for marine mammals and must report visual alerts of marine mammal presence to the Deck Officer; lookouts receive extensive training that covers the fundamentals of visual observing for marine mammals and information about marine mammals and their identification at sea; and SURTASS LFA vessels travel at low speed (3–4 kts (approximately 3.4 mph; 5.6 km/hr)) with deployed arrays. Lastly, the use of passive and active acoustic monitoring for marine mammals as mitigation measures to monitor for marine mammals along with visual marine mammal observers would detect cetaceans well in advance of any potential ship strike distance (for a thorough discussion of mitigation measures, please see the Proposed Mitigation section later in this document).

Due to the reasons described above (low probability of vessel/marine mammal interactions; relatively slow vessel speeds; and high probability of detection due to applied mitigation measures), the Navy and NMFS have determined that take of marine mammals by vessel strike is highly unlikely. Therefore, the Navy has not requested any take of marine mammals due to ship strike, nor is NMFS considering any authorization of take due to ship strike.

Results From Past Monitoring

From the commencement of SURTASS LFA sonar use in 2002 through the present, neither operation of LFA sonar, nor operation of the T–AGOS vessels, has been associated with any mass or individual strandings of marine mammals temporally or spatially. In addition, the Navy's required monitoring reports indicate that there have been no apparent avoidance reactions observed, and no takes by Level A harassment due to SURTASS LFA sonar since its use began in 2002. Lastly, monitoring reports from previous years of operation indicate that the Navy typically transmits SURTASS LFA sonar well below the authorized number of hours and the actual percentages of affected stocks are well below the 12 percent cap for Level B harassment for each stock. In summary, results of the analyses conducted for SURTASS LFA sonar and more than thirteen years of documented operational results support the determination that the only takes anticipated would be short-term Level B harassment of relatively small percentages of affected marine mammal stocks.

Effects on Marine Mammal Habitat and Prey

Based on the following information and the supporting information included in the Navy's application as well as the 2001; 2007; 2012; and 2015 NEPA documents, and 2016 DSEIS/SOEIS, NMFS has preliminarily determined that SURTASS LFA sonar activities are not likely to adversely impact marine mammal habitat. For reasons described above, unless the sound 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 actions involving physical alteration of the habitat. Marine mammals may be temporarily displaced from areas where SURTASS LFA activities are occurring to avoid noise exposure (see above), but those areas themselves will not be altered and will likely be available for use again after the activities have ceased or moved out of the area.

The Navy's proposed SURTASS LFA sonar activities could potentially affect marine mammal habitat through the introduction of pressure and sound into the water column, which in turn could impact prey species of marine mammals.

Anticipated Impacts on Prey Species (Invertebrates and Fish)

Among invertebrates, only cephalopods (octopus and squid) and decapods (lobsters, shrimps, and crabs) are known to sense LF sound (Packard *et al.,* 1990; Budelmann and Williamson, 1994; Lovell *et al.,* 2005; Mooney *et al.,* 2010). Popper and Schilt (2008) stated that, like fish, some invertebrate species produce sound, possibly using it for communications, territorial behavior, predator deterrence, and mating. Well known sound producers include the lobster (*Panulirus* spp.) (Latha *et al.,* 2005), and the snapping shrimp (*Alpheus heterochaelis*) (Herberholz and Schmitz, 2001).

Andre *et al.* (2011) exposed four cephalopod species (*Loligo vulgaris, Sepia officinalis, Octopus vulgaris,* and *Ilex coindetii)* to two hours of continuous sound from 50 to 400 Hz at 157 ± 5 dB re: 1 μPa. They reported lesions to the sensory hair cells of the statocysts of the exposed animals that increased in severity with time, suggesting that cephalopods are particularly sensitive to low-frequency sound. The Navy notes in the DSEIS/SOEIS (Chapter 4) that a follow-on study was conducted with Mediterranean and European squid (*Octopus vulgaris,* and *Ilex coindetii*) that included controls (Solé *et al.,* 2013), which found a similar result as Andre *et al.* (2011) with permanent and substantial alteration of the sensory hair cells of the statocysts. Aguilar de Soto *et al.* (2013) exposed New Zealand scallop larvae (*Pecten novaezeandiae*) to recorded signals from a seismic airgun survey every three seconds for up to 70 hours. They found a delay in development and malformations of the larvae in the noise-exposed samples. However, SURTASS LFA sonar has none of the same characteristics as the acoustic sources used in these studies. The time sequence of exposure from low-frequency sources in the open ocean would be about once every 10 to 15 min for SURTASS LFA. Therefore, the study's sound exposures were longer in duration and higher in energy than any exposure a marine mammal would likely ever receive and acoustically very different than a free field sound to which animals would be exposed in the real world. SURTASS LFA sonar activities would only be expected to have a lasting impact on these animals if they are within a few tens of meters from the source. In conclusion, NMFS does not expect any short- or long-term effects to marine mammal food

resources from SURTASS LFA sonar activities.

The Navy's DSEIS/SOEIS includes a detailed discussion of the effects of active sonar on marine fish and several studies on the effects of both Navy sonar and seismic airguns that are relevant to potential effects of SURTASS LFA sonar on *osteichthyes* (bony fish). In the most pertinent of these, the Navy funded independent scientists to analyze the effects of SURTASS LFA sonar on fish (Popper *et al.,* 2007; Halvorsen *et al.,* 2006) and on the effects of SURTASS LFA sonar on fish physiology (Kane *et al.,* 2010).

Several studies on the effects of SURTASS LFA sonar sounds on three species of fish (rainbow trout, channel catfish, and hybrid sunfish) examined long-term effects on sensory hair cells of the ear. In all species, even up to 96 hours post-exposure, there were no indications of damage to sensory cells (Popper *et al.,* 2005a, 2007; Halvorsen *et al.,* 2006). Recent results from direct pathological studies of the effects of LFA sounds on fish (Kane *et al.,* 2010) provide evidence that SURTASS LFA sonar sounds at relatively high received levels (up to 193 dB re: 1 µPa at 1 m) have no pathological effects or short-or long-term effects to ear tissue on the species of fish that have been studied.

Proposed Mitigation

Least Practicable Adverse Impact Standard Discussion

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, and on the availability of such species or stock for subsistence uses (''least practicable adverse impact''). NMFS does not have a regulatory definition for least practicable adverse impact. The FY 2004 NDAA 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.''

In *Conservation Council for Hawaii* v. *National Marine Fisheries Service,* 97 F. Supp. 3d 1210, 1229 (D. Haw. Mar. 31, 2015), the court stated that NMFS ''appear[s] to think [it] satisf[ies] the statutory 'least practicable adverse impact' requirement with a 'negligible impact' finding.'' More recently, expressing similar concerns in a challenge to our last SURTASS LFA sonar incidental take rule, the Ninth Circuit Court of Appeals in *Natural Resources Defense Council* v. *Pritzker,* 828 F.3d 1125, 1134 (9th Cir. July 15, 2016), stated, ''Compliance with the 'negligible impact' requirement does not mean there [is] compliance with the 'least practicable adverse impact standard [. . .] .'' As the Ninth Circuit noted in its opinion, however, the court was interpreting the statute without the benefit of NMFS' formal interpretation. We state here explicitly, as we have said in the past, that NMFS is in full agreement that the ''negligible impact'' and ''least practicable adverse impact'' requirements are distinct, even though both statutory standards refer to species and stocks. With that in mind, we provide further explanation of our interpretation of least practicable adverse impact, and explain what distinguishes it from the negligible impact standard. This discussion is consistent with, and expands upon, previous rules we have issued.

Before NMFS can issue incidental take regulations under section 101(a)(5)(A) of the MMPA, it must make a finding that the total taking will have a ''negligible impact'' on the affected ''species or stocks'' of marine mammals. NMFS' and U.S. Fish and Wildlife Service's joint implementing regulations for section 101(a)(5)(A) define ''negligible impact'' 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.'' (50 CFR 216.103 and 50 CFR 18.27(c)) Recruitment (*i.e.,* reproduction) and survival rates are used to determine population growth rates [1] and, therefore are considered in evaluating population level impacts.

As we stated in the preamble to the final rule for the joint implementing regulations, not every population-level impact violates the negligible impact requirement. The negligible impact standard does not require a finding that the anticipated take will have ''no effect'' on population numbers or growth rates: ''The statutory standard does not require that the same recovery rate be maintained, rather that no significant effect on annual rates of recruitment or survival occurs [. . .]. [T]he key factor is the significance of the level of impact on rates of recruitment or survival.'' (See 54 FR 40338, 40341–42 (September 29, 1989))

While some level of impact on population numbers or growth rates of a species or stock may occur and still satisfy the negligible impact requirement—even without consideration of mitigation—the least practicable adverse impact provision separately requires NMFS to prescribe the 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 [. . .].'' [2] [3]

The negligible impact and least practicable adverse impact standards in the statute share a common reference to ''species or stocks.'' A ''species'' is defined as a group of animals or plants that are similar and can produce young animals or plants: A group of related animals or plants that is smaller than a genus *http://www.merriam-webster.com/dictionary/species.* ''Population stock'' or ''stock'' means a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature (16 U.S.C. 1362(11)). We believe those terms indisputably refer to populations of animals, aFurther nd that it is therefore appropriate to view both MMPA provisions as having a population-level focus. This is consistent with both the language of the statute and Congress's overarching conservation objective in enacting the MMPA. See 16 U.S.C. 1361 (Congress's findings reflecting policy concerns about the extinction or depletion of certain marine mammal species or stocks and the goal of ensuring they are functioning elements of their ecosystems).

Recognizing this common focus of the two provisions on ''species or stock'' does not mean we conflate the standards; despite some common statutory language, we recognize the two provisions are different in other ways and have different functions.[4] First, a negligible impact finding is required before NMFS can issue an incidental take authorization. Although it is

[1] A growth rate can be positive, negative, or flat.

[2] For purposes of this discussion we omit reference to the language in the standard for least practicable adverse impact that says we also must mitigate for subsistence impacts because they are not at issue in this action.

[3] NMFS' incidental take actions routinely refer to the least practicable adverse impact requirement in shorthand as ''mitigation,'' a concept that broadly encompasses measures or practices that are reasonably designed to avoid, reduce, or minimize impacts.

[4] See also *CBD* v. *Salazar,* 695 F.3d 893 (9th Cir. 2012) (finding that some overlap between FWS' factors for determining negligible impact and small numbers was not an improper conflation of the two standards where the agency also considered other factors in reaching its conclusions).

acceptable to use mitigation to reach a negligible impact finding (50 CFR 216.104(c)), no amount of mitigation can enable NMFS to issue an incidental take authorization for an activity that still would not meet the negligible impact standard. Moreover, even where NMFS can reach a negligible impact finding—which we emphasize does allow for the possibility of some ''negligible'' population-level impact—the agency must still prescribe practicable measures that will effect the least amount of adverse impact upon the affected species or stock.

Further, section 101(a)(5)(A)(i)(II) requires NMFS to issue, in conjunction with its authorization, binding—and enforceable—restrictions (in the form of regulations) setting forth how the activity must be conducted, thus ensuring the activity has the ''least practicable adverse impact'' on the affected species or stocks. In situations where mitigation is needed to reach a negligible impact determination, section 101(a)(5)(A)(i)(II) also provides a mechanism for ensuring compliance with the ''negligible impact'' requirement. Finally, we also reiterate that the ''least practicable adverse impact'' standard requires mitigation for marine mammal habitat, with particular attention to rookeries, mating grounds, and other areas of similar significance, and for mitigating subsistence impacts; whereas the negligible impact standard is concerned with conclusions about the impact of an activity on the affected populations.[5]

In *NRDC* v. *Pritzker,* the court stated, ''[t]he statute is properly read to mean that even if population levels are not threatened *significantly,* still the agency must adopt mitigation measures aimed at protecting *marine mammals* to the greatest extent practicable in light of military readiness needs.'' *Id.* At 1134 (emphasis added). This statement is consistent with our understanding stated above that even when the effects of an action satisfy the negligible impact standard (*i.e.,* in the court's words, ''population levels are not threatened significantly''), still the agency must prescribe mitigation under the least practicable adverse impact standard. However, as the statute indicates, the focus of both standards is ultimately the impact on the affected ''species or stock,'' and not solely focused on/directed at the impact on individual marine mammals.

We have carefully reviewed and considered the Ninth Circuit's opinion in *NRDC* v. *Pritzker* in its entirety. While the court's reference to ''marine mammals'' rather than ''marine mammal species or stocks'' in the italicized language above might be construed as a holding that the least practicable adverse impact standard applies at the individual ''marine mammal'' level, *i.e.,* that NMFS must require mitigation to minimize impacts to each individual marine mammal unless impracticable, we believe such an interpretation reflects an incomplete appreciation of the court's holding. In our view, the opinion as a whole turned on the court's determination that NMFS had not given separate and independent meaning to the least practicable adverse impact standard apart from the negligible impact standard, and further that the court's use of the term ''marine mammals'' was not addressing the question of whether the standard applies to individual animals as opposed to the species or stock as a whole. We recognize that while consideration of mitigation can play a role in a negligible impact determination, consideration of mitigation extends beyond that analysis. In evaluating what mitigation is appropriate NMFS considers the impacts of the proposed action, the availability of measures to minimize those potential impacts, and the practicability of implementing those measures, as we describe below.

Implementation of Least Practicable Adverse Impact

Given this most recent court decision, we further clarify how we determine whether a measure or set of measures meets the ''least practicable adverse impact'' standard. Our evaluation of potential mitigation measures includes consideration of two primary factors:

(1) The manner in which, and the degree to which, implementation of the measure(s) is expected to reduce impacts to marine mammal species or stocks, their habitat, and their availability for subsistence uses (where relevant). Among other things, this analysis will consider the nature of the potential adverse impact (such as likelihood, scope, range), the likelihood that the measure will be effective if implemented; and the likelihood of successful implementation.

(2) The practicability of the measures for applicant implementation. Practicability of implementation may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity (16 U.S.C. 1371(a)(5)(A)(ii)).

While the language of the least practicable adverse impact standard calls for minimizing impacts to affected species or stocks, we recognize that the reduction of impacts to those species or stocks accrues through the application of mitigation measures that limit impacts to individual animals. Accordingly, NMFS' analysis will focus on measures designed to avoid or minimize impacts on marine mammals from activities that are likely to increase the probability or severity of population-level effects. While direct evidence of impacts to species or stocks from a specified activity is rarely available, and additional study is still needed to describe how specific disturbance events affect the fitness of individuals of certain species, there have been improvements in understanding the process by which disturbance effects are translated to the population. With recent scientific advancements (both marine mammal energetic research and the development of energetic frameworks), the relative likelihood or degree of impacts on species or stocks may often be inferred given a detailed understanding of the activity, the environment, and the affected species or stocks. This same information is used in the development of mitigation measures and helps us understand how mitigation measures contribute to lessening species or stock effects.

In the evaluation of specific measures, the details of the specified activity will necessarily inform each of the two factors and will be carefully considered to determine the types of mitigation that are appropriate under the least practicable adverse impact standard. The greater the likelihood that a measure will contribute to reducing the probability or severity of adverse impacts to the species or stock, the greater the weight that measure(s) is given when considered in combination with practicability to determine the appropriateness of the mitigation measure(s), and vice versa.

Below we discuss how these factors are considered.

1. *Reduction of adverse impacts to species or stock.* The emphasis given to a measure's ability to reduce the impacts on a species or stock considers the degree, likelihood, and context of the anticipated reduction of impacts to individuals as well as the status of the species or stock.

The ultimate impact on any individual from a disturbance event (which informs the likelihood of adverse species or stock-level effects) is dependent on the circumstances and associated contextual factors, such as duration of exposure to stressors. Though any proposed mitigation needs to be evaluated in the context of the

specific activity and the species or stocks affected, measures with the following types of goals are often applied to reduce the likelihood or severity of adverse species or stock-level impacts: Avoiding or minimizing injury or mortality; limiting interruption of known feeding, breeding, mother/young, or resting behaviors; minimizing the abandonment of important habitat (temporally and spatially); minimizing the number of individuals subjected to these types of disruptions; and limiting degradation of habitat. Mitigating these types of effects is intended to reduce the likelihood that the activity will result in energetic or other types of impacts that are more likely to result in reduced reproductive success or survivorship. It is also important to consider the degree of impacts that were expected in the absence of mitigation in order to assess the added value of any potential measures.

The status of the species or stock is also relevant in evaluating the appropriateness of certain mitigation measures in the context of least practicable adverse impact. The following are examples of factors that may (either alone, or in combination) result in greater emphasis on the importance of a mitigation measure in reducing impacts on a species or stock: The stock is known to be decreasing or status is unknown, but believed to be declining; the known annual mortality (from any source) is approaching or exceeding the potential biological removal (PBR) level (as defined in 16 U.S.C. 1362(20)); the affected species or stock is a small, resident population; or the stock is involved in an unusual mortality event (UME) or has other known vulnerabilities, such as recovering from an oil spill.

Reduction of habitat impacts. Habitat mitigation, particularly as it relates to rookeries, mating grounds, and areas of similar significance, is also relevant and can include measures, such as reducing impacts of the activity on known prey utilized in the activity area or reducing impacts on physical habitat.

Likely effectiveness of the measure. We consider available information indicating the likelihood of any measure to accomplish its objective. If evidence shows that a measure has not typically been effective or successful, then either that measure should be modified, or the potential value of the measure to reduce effects is lowered.

2. *Practicability.* Factors considered may include cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity (16 U.S.C. 1371(a)(5)(A)(ii)).

The above section describes the factors considered in making a least practicable adverse impact finding. In summary, NMFS will carefully balance the likelihood and degree to which a measure will reduce adverse impacts on species or stocks with the measure's practicability in determining appropriate mitigation measures.

As with other rulemakings for SURTASS LFA sonar, our consideration of mitigation under the least practicable adverse impact standard was conducted at scales that take into account the entire five-year rulemaking period and broad geographic scope of potential areas of SURTASS LFA sonar activities and the types of general impacts that could occur under the rule. Based on the types of impacts that could occur, and the mitigation outlined for the activities in this proposed rule, NMFS has preliminarily determined that the least practical adverse impact standard is met. Specifically, NMFS and the Navy have considered worldwide mitigation at the scale appropriate, given the available information, and have additionally considered mitigation recommended in a white paper, entitled, ''Identifying Areas of Biological Importance to Cetaceans in Data-Poor Regions'' (White Paper), for SURTASS LFA sonar generally, and in consideration of the more specific information applicable to the current proposed operating areas for 2017–2018. The adaptive management provisions in the proposed rule allow for the consideration of new information that will potentially support the modification of mitigation and monitoring measures. This information may include new science, but also may include additional detail regarding the operational needs of the Navy described in an LOA application, which could inform a more refined least practicable adverse impact analysis, where needed.

The Navy has proposed to implement the following mitigation measures for marine mammals, most of which are included in NMFS' current regulations and LOAs for SURTASS LFA sonar:

(1) LFA sonar mitigation zone—LF source transmissions are suspended if the Navy detects marine mammals within the 180 dB received level mitigation zones by any of the following detection methods:

(a) Visual monitoring;

(b) Passive acoustic monitoring;

(c) Active acoustic monitoring.

(2) Geographic restrictions such that the received level of SURTASS LFA sonar transmissions will not exceed 180 dB in the following areas:

(a) Offshore Biologically Important Areas (OBIAs) during periods of biological importance;

(b) Coastal Standoff Zone (22 km (12 nmi) from any land).

Additionally, as with the previous rulemaking, NMFS proposes to include additional operational restrictions for SURTASS LFA sonar activities:

(1) Additional 1-km buffer around the LFA sonar mitigation zone; and

(2) Additional 1-km buffer around an OBIA perimeter.

Both the Navy's proposed mitigation and NMFS' additional proposed mitigation are discussed in the following section.

LFA Sonar Mitigation Zone

The Navy has proposed in its application to establish an LFA sonar mitigation zone corresponding to the 180-dB (RL) isopleth around the surveillance vessel (*i.e.,* LFA sonar). If a marine mammal approaches or enters the LFA sonar mitigation zone, the Navy would implement a suspension of SURTASS LFA sonar transmissions. The purpose of this mitigation zone measure in prior rules was to reduce or alleviate the likelihood that marine mammals are exposed to levels of sound that may result in injury (PTS). However, due to the revised criteria in the NMFS 2016 Acoustic Technical Guidance, this mitigation zone measure precludes not only PTS, but also almost all TTS and higher forms of behavioral harassment. Thus, while not an expansion of the mitigation zone, this measure is now considered more effective at reducing a broader range of impacts compared to prior authorizations.

Prior to commencing and during SURTASS LFA transmissions, the Navy will determine the propagation of LFA sonar signals in the ocean and the distance from the SURTASS LFA sonar source to the 180-dB isopleth (See Description of Real-Time SURTASS LFA Sonar Sound Field Modeling section). The 180-dB isopleth will define the LFA sonar mitigation zone for marine mammals around the surveillance vessel.

The Navy modeling of the sound field in near-real time conditions provides the information necessary to modify SURTASS LFA activities, including the delay or suspension of LFA transmissions. Acoustic model updates are nominally made every 12 hours, or more frequently when meteorological or oceanographic conditions change. If the sound field criteria were exceeded, the sonar operator would notify the Officer in Charge (OIC), who would order the delay or suspension of transmissions. If

it were predicted that the SPLs would exceed the criteria within the next 12-hour period, the OIC would also be notified in order to take the necessary action to ensure that the sound field criteria would not be exceeded.

Description of Real-Time SURTASS LFA Sonar Sound Field Modeling

This section explains how the Navy will determine the propagation of SURTASS LFA sonar signals in the ocean and the distance from the SURTASS LFA sonar source to the 180-dB re: 1 µPa isopleth (*i.e.,* the basis for the proposed LFA sonar mitigation zone for marine mammals). NMFS provides this simplified description to aid the public's understanding of this action. However, the actual physics governing the propagation of SURTASS LFA sound signals is extremely complex and dependent on numerous in-situ environmental factors.

Prior to commencing and during SURTASS LFA sonar transmissions, the sonar operators on the vessel will measure oceanic conditions (such as sea water temperature, salinity, and water depth) in the proposed action area. This information is required for the sonar technicians to accurately determine the speed at which sound travels and to determine the path that the sound would take through the water column at a particular location (*i.e.,* the speed of sound in seawater varies directly with depth, temperature, and salinity).

The sonar operators use the near real-time environmental data and the Navy's underwater acoustic performance prediction models (updated every 12 hours or more frequently when meteorological or oceanographic conditions change) to generate a plot of sound speed versus depth, typically referred to as a sound speed profile (SSP). The SSP enables the technicians to determine the sound field by predicting the received levels of sound at various distances from the SURTASS LFA sonar source location. Modeling of the sound field in near-real time provides the information necessary to modify SURTASS LFA activities, including the delay or suspension of LFA sonar transmissions for mitigation.

NMFS' Additional 1-km Buffer Zone Around the LFA Sonar Mitigation Zone

As an added measure NMFS again proposes to require a buffer zone that extends an additional 1 km (0.62 mi; 0.54 nm) beyond the Navy's proposed 180-dB isopleth LFA sonar mitigation zone. This buffer coincides with the full detection range of the HF/M3 active sonar for mitigation monitoring (approximately 2 to 2.5 km; 1.2 to 1.5 mi; 1.1 to 1.3 nmi). Thus, the 180-dB isopleth for the LFA sonar mitigation zone, plus NMFS' 1-km (0.54 nm) buffer zone would comprise the entire shutdown mitigation zone for SURTASS LFA sonar activities, wherein suspension of transmissions would occur if a marine mammal approaches or enters either zone. Implementation of this additional 1 km buffer zone increases the shutdown zone to approximately 2 km (1.2 mile; 1.1 nmi) around the LFA sonar array and vessel and, given the highly effective monitoring capabilities (described below), will ensure that no marine mammals are exposed to an SPL greater than approximately 174 dB re: 1 µPa. In past applications, the Navy has noted that this additional mitigation is practicable and the Navy has implemented this measure in previous authorizations, so it is known that the measure is practicable. In addition, as noted above, this mitigation is more effective at reducing a broader range of impacts compared to prior authorizations, due to the revised criteria in the NMFS 2016 Acoustic Technical Guidance.

Commercial and Recreational SCUBA Diving Mitigation Zone

Navy has also proposed to establish a mitigation zone for human divers at 145 dB re: 1 µPa at 1 m around all known human commercial and recreational diving sites. Although this geographic restriction is intended to protect human divers, it will also reduce the LF sound levels received by marine mammals located in the vicinity of known dive sites.

Visual Mitigation Monitoring

The use of shipboard lookouts is a critical component of most Navy mitigation measures. Navy shipboard lookouts are highly qualified and experienced observers of the marine environment. Their duties require that they report all objects sighted on the water surface to the Deck Officer (*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 Navy ship is moving through the water.

Visual monitoring consists of daytime observations for marine mammals from the bridge of SURTASS LFA sonar vessels by lookouts (personnel trained in detecting and identifying marine mammals). The objective of these observations is to maintain a bearing of marine mammals observed and to ensure that none approach close enough to enter the LFA mitigation zone or the 1-km buffer zone.

Daylight is defined as 30 min before sunrise until 30 min after sunset. Visual monitoring would begin 30 min before sunrise or 30 min before the Navy deploys the SURTASS LFA sonar array. Lookouts will continue to monitor the area until 30 min after sunset or until recovery of the SURTASS LFA sonar array.

The lookouts would maintain a topside watch and marine mammal observation log during activities that employ SURTASS LFA sonar in the active mode. These trained monitoring personnel maintain a topside watch and scan the water's surface around the vessel systematically with standard binoculars (7x) and with the naked eye. If the lookout sights a possible marine mammal, the lookout will use big-eye binoculars (25x) to confirm the sighting and potentially identify the marine mammal species. Lookouts will enter numbers and identification of marine mammals sighted into the log, as well as any unusual behavior. A designated ship's officer will monitor the conduct of the visual watches and periodically review the log entries.

If a lookout observes a marine mammal outside of the LFA mitigation or buffer zone, the lookout will notify the officer in charge (OIC). The OIC shall then notify the HF/M3 active sonar operator to determine the range and projected track of the marine mammal. If the HF/M3 sonar operator or the lookout determines that the marine mammal will pass within the LFA mitigation or buffer zones, the OIC shall order the delay or suspension of SURTASS LFA sonar transmissions when the animal enters the LFA mitigation or buffer zone to prevent Level A harassment.

If a lookout observes a marine mammal anywhere within the LFA mitigation or 1-km buffer zone (as proposed by NMFS), the lookout shall notify the OIC who will promptly order the immediate delay or suspension of SURTASS LFA sonar transmissions. The lookout will enter his/her observations into the log. The lookout will enter these observations about sighted marine mammals into the log: Date/time; vessel name; mission area; type and number of marine mammals observed; assessment basis (*i.e.,* observed injury or behavioral response); LFA mitigation or buffer zone radius; bearing from vessel; whether activities were delayed, suspended, or terminated; and relevant narrative information.

Marine mammal biologists who are qualified in conducting at-sea marine

mammal visual monitoring from surface vessels shall train and qualify designated ship personnel to conduct at-sea visual monitoring. This training may be accomplished either in-person, or via video training.

Passive Acoustic Mitigation Monitoring

For the second of the three-part mitigation monitoring measures, the Navy again proposes to conduct passive acoustic monitoring using the SURTASS towed horizontal line array to listen for vocalizing marine mammals as an indicator of their presence. This system serves to augment the visual and active sonar detection systems. If a passive acoustic technician detects a vocalizing marine mammal that may be potentially affected by SURTASS LFA sonar prior to or during transmissions, the technician will notify the OIC who will immediately alert the HF/M3 active sonar operators and the lookouts. The OIC will order the delay or suspension of SURTASS LFA sonar transmissions when the animal enters the LFA mitigation or buffer zone as detected by either the HF/M3 sonar operator or the lookouts. The passive acoustic technician will record all contacts of marine mammals into a log.

Active Acoustic Mitigation Monitoring

HF active acoustic monitoring uses the HF/M3 sonar to detect, locate, and track marine mammals that could pass close enough to the SURTASS LFA sonar array to enter the LFA sonar mitigation or buffer zones. HF/M3 acoustic monitoring begins 30 min before the first SURTASS LFA sonar transmission of a given mission is scheduled to commence and continues until the Navy terminates LFA sonar transmissions.

If the HF/M3 sonar operator detects a marine mammal contact outside the LFA sonar mitigation zone or buffer zones, the HF/M3 sonar operator shall determine the range and projected track of the marine mammal. If the operator determines that the marine mammal will pass within the LFA sonar mitigation or buffer zone, he/she shall notify the OIC. The OIC then immediately orders the delay or suspension of transmissions when the animal is predicted to enter the LFA sonar mitigation or buffer zone.

If the HF/M3 sonar operator detects a marine mammal within the LFA mitigation or buffer zone, he/she shall notify the OIC who will immediately order the delay or suspension of transmissions. The HF/M3 sonar operator will record all contacts of marine mammals into the log.

Prior to full-power operations of the HF/M3 active sonar, and prior to any SURTASS LFA sonar calibrations or testing that are not part of regular SURTASS LFA sonar transmission, the Navy will ramp up the HF/M3 sonar power level over a period of 5 min from the source level of 180 dB re 1 µPa at 1 m in 10-dB increments until the system attains full power (if required) to ensure that there are no inadvertent exposures of marine mammals to received levels greater than 180 dB re 1 µPa from the HF/M3 sonar. The Navy will not increase the HF/M3 sonar source level if any of the three monitoring programs detect a marine mammal during ramp-up. Ramp-up may continue once marine mammals are no longer detected by any of the three monitoring programs.

In situations where the HF/M3 sonar system has been powered down for more than 2 min, the Navy will ramp up the HF/M3 sonar power level over a period of 5 min from the source level of 180 dB re 1 µPa at 1 m in 10-dB increments until the system attains full power.

Geographic Restrictions

As noted above, the Navy again has proposed two types of geographic restrictions for SURTASS LFA activities in their rulemaking/LOA application that entail restricting SURTASS LFA sonar activities within these designated areas such that the SURTASS LFA sonar-generated sound field will not exceed 180 dB re: 1µPa (RL): (1) Establishing OBIAs for marine mammals; and (2) observing a coastal standoff range restricting SURTASS LFA sonar activities within 22 km (13. mi; 12 nmi) of any coastline, including islands.

As with previous rulemakings for SURTASS LFA sonar, this proposed rulemaking contains a broad programmatic consideration of geographic restrictions, including OBIAs, in the world's oceans. However, as noted above, NMFS proposes to refine the process to consider additional geographic restrictions annually, as appropriate, based on any new science and the areas in which the Navy will conduct SURTASS LFA sonar activities in those years, as described in any subsequent LOA applications. The reason for this change is to allow the Navy and NMFS to focus on areas of Navy activities and known operational needs, and consideration of whether additional geographic restrictions are appropriate based on new information that may be available and taking practicability into account, at the time of the LOA application.

Offshore Biologically Important Areas

Given the unique operational characteristics of SURTASS LFA sonar, Navy and NMFS developed geographical restrictions for SURTASS LFA sonar in the SURTASS LFA Sonar FOEIS/EIS (DoN, 2001): A 12 nmi coastal standoff zone where received levels from SURTASS LFA sonar could not exceed 180 dB and designating OBIAs wherein received levels could not exceed 180 dB. These areas are intended to reduce the severity and/or scale of impacts on affected marine mammal species or stocks by avoiding or minimizing impacts in areas where marine mammals are: (1) Known to engage in specific behaviors that lead to more severe impacts if interrupted; (2) known to congregate in higher densities, and; (3) known to have a limited range and small abundance that creates more vulnerability for the stock as a whole. OBIAs were defined originally in the 2001 SURTASS LFA Sonar FOEIS/EIS (Subchapter 2.3.2.1) as those areas of the world's oceans outside of the geographic stand-off distance (greater than 22 km (12 nmi)) from a coastline (including islands) where marine animals of concern (those animals listed under the ESA and/or marine mammals) carry out biologically important activities, including migration, foraging, breeding, and calving. Limiting activities in these important areas is expected to limit the likelihood or severity of species or stock effects by minimizing the chances that take resulting from the activity will result in detrimental energetic effects (such as those that could occur in known feeding areas) or direct interference in breeding or mother/young interactions (such as those that could occur in reproductive areas) that could translate readily to reductions in reproductive success or survivorship. Three OBIAs were identified in the 2001 FOEIS/EIS: 200 m isobaths of the east coast of North America; Costa Rica Dome; and Antarctic Convergence Zone. In 2007, the Navy published a supplemental FEIS/FOEIS that designated six new OBIAs in addition to the three OBIAs that were designated in the 2001 FEIS/FOEIS.

For the 2012–2017 rule, the Deputy Assistant Secretary of the Navy for Environment (DASN(E)) determined that the purpose of NEPA and EO 12114 would be furthered by the preparation of an additional supplemental analysis related to the employment of SURTASS LFA sonar. Accordingly, the DASN(E) directed that an SEIS/SOEIS (among other things) provide further analysis of potential additional OBIAs in regions of

the world where the Navy intends to use the SURTASS LFA sonar systems.

In parallel, for the 2012 rule, NMFS, with Navy input, developed a new process and screening criteria for determining an area's eligibility to be considered as an OBIA nominee for marine mammals. The new criteria consisted of: Areas with (a) High densities of marine mammals; or (b) Known/defined breeding/calving grounds, foraging grounds, migration routes; or (c) Small, distinct populations of marine mammals with limited distributions. The revised biological criteria differed from the criteria in the 2001 FOEIS/EIS (and as continued in the 2007 SEIS) in two respects. First, under the 2001 FOEIS/EIS, 2007 SEIS, and the 2007 Final Rule, an area could be designated as an OBIA only if it met a conjunctive test of being an area where: (1) Marine mammals congregate in high densities, and (2) for a biologically important purpose. Under the new criteria, any one of the biological criteria alone could be a sufficient basis for designation as an OBIA if it also met the geographic criterion of falling outside of 12 nmi (22 km) from any coastline. Second, the revised biological criteria included a new criterion of ''small, distinct population with limited distribution'' that could also, standing alone, be a basis for designation.

Notably, for the 2012 FSEIS/SOEIS and 2012 rule, NMFS also developed and implemented a robust, systematic screening process for reviewing existing and potential marine protected areas against the OBIA criteria based on the World Database on Protected Areas (WDPA, 2009), Hoyt (2005), and prior SURTASS LFA sonar OBIAs. This process produced a preliminary list of 403 OBIA nominees. As stated in the FR notice for the 2012 Final Rule (77 FR 50290), over 80 percent of the 403 existing and potential marine protected areas reviewed as potential OBIAs (340/403) were within 12 nmi from a coastline and therefore were afforded protection due to the coastal standoff zone. The remaining areas were evaluated under the OBIA criteria, and approximately 43 percent of these had sufficient information to be provided to subject matter experts (SMEs), from both within NMFS and outside of the agency, with expertise in the specific geographic regions to review for consideration of OBIAs. These SMEs provided their individual analyses of those areas and recommendations for additional OBIAs, resulting in a total of 73 potential OBIAs for consideration by the Navy and NMFS. Further analysis of the biological evidence and robustness of the data for each of these recommendations included ranking them in categories using a numbering system ranging from 0 to 4. Any of the nominees that received a ranking of 2 or higher were eligible for continued consideration as an OBIA nominee, which means that even areas requiring more data were eligible for further consideration as an OBIA. As a result of this process, 45 areas ranked high enough to be further considered as an OBIA.

Although not part of its initial screening criteria, consideration of marine mammal hearing frequency sensitivity led NMFS to screen out areas that qualified solely on the basis of their importance for mid- or high-frequency hearing specialists in past rulemaking. This was due to the LFA sound source being below the range of best hearing sensitivity for most MF and HF odontocete hearing specialists. This means, for example, for harbor porpoises, that a sound with a frequency less than 1 kHz would need to be significantly louder (more than 40 dB louder) than a sound in their area of best sensitivity (around 100 kHz) in order for them to hear it. Additionally, during the 1997 to 1998 SURTASS LFA Sonar Low Frequency Sound Scientific Research Program (LFS SRP), numerous odontocete and pinniped species (*i.e.,* MF and HF hearing specialists) were sighted in the vicinity of the sound exposure tests and showed no immediately obvious responses or changes in sighting rates as a function of source conditions, which likely produced received levels similar to those that produced minor short-term behavioral responses in the baleen whales (*i.e.,* LF hearing specialists). NMFS stated that MF and HF odontocete hearing specialists have such reduced sensitivity to the LFA source that limiting ensonification in OBIAs for those animals would not afford protection beyond that which is already incurred by implementing a shutdown when any marine mammal enters the LFA mitigation and buffer zones. Therefore, consideration of marine mammal frequency sensitivity led NMFS to screen out areas that qualified solely on the basis of their importance for MF or HF specialists.

In addition to the considerations above, NMFS reviewed Hoyt (2011), which was an update and revision of Hoyt's 2005 earlier work, along with areas recommended in public comments received on the 2012 DSEIS/SOEIS. As a result of this further analysis, NMFS concluded that there was adequate basis to designate 22 OBIAs for the Navy to consider for practicability. The OBIAs in the 2012 FSEIS/SOEIS and NMFS' proposed rule were: Georges Bank (year round); Roseway Basin Right Whale Conservation Area (Canadian restriction June through December annually); Great South Channel, US Gulf of Maine, and Stellwagen Bank NMS (January 1 to November 14 annually); Southeastern US Right Whale Seasonal Habitat (November 15 to April 15 annually); North Pacific Right Whale Critical Habitat (March through August annually); Silver Bank and Navidad Bank (December through April); Coastal Waters of Gabon, Congo and Equatorial Guinea (June through October annually); Patagonia and Shelf Break (year round); Southern Right Whale Seasonal Habitat (May through December annually); Central California NMS (June through November); Antarctic Convergence Zone (October through March annually); Piltun and Chayvo Offshore Feeding Grounds—Sea of Okhotsk (June through November annually); Coastal Waters off Madagascar (July through September and November through December annually); Madagascar Plateau, Madagascar Ridge, and Walters Sound (November through December annually); Ligurian-Corsican-Provencal Basin and Western Pelagos Sanctuary (July to August annually); Hawaiian Islands Humpback Whale NMS—Penguin Bank (November through April annually); Costa Rica Dome (year round); Great Barrier Reef Between (May through September annually); Bonney Upwelling (December through May annually); Northern Bay of Bengal and Head of Swatch-of-No-Ground (year round); Olympic Coast: The Prairie, Barkley Canyon, and Nitnat Canyon (December, January, March and May and June to September); and an area within the Southern California Bight (specifically including Tanner and Cortez Banks—June through November, annually). The Southern California Bight area was the only OBIA candidate that was operationally impracticable for the Navy. Therefore, 21 OBIAs were considered candidates in the 2012 Proposed Rule. For the Final Rule, NMFS designated one additional OBIA (Abrolhos Bank, August through November annually), resulting in 22 designated OBIAs for SURTASS LFA sonar.

In response to public comments on the 2012 proposed rule, NMFS also reevaluated its preliminary decision not to include areas that meet the criteria for sperm whales and pinnipeds, and ultimately determined such areas would be appropriate for OBIA designation where information established the criteria were met, and in fact noted that OBIA 8 (Patagonia Shelf) had already

been identified for elephant seals. While no OBIAs had been identified for sperm whales, NMFS committed to considering sperm whales in future analyses should supporting information become available.

From 2012 to the present, the Navy and NMFS have maintained a list of potential marine areas for which information or data have not been sufficient to designate as OBIAs, and reviewed new literature to determine if additional areas should be added to the list of potential areas. Potential areas are periodically evaluated or re-assessed to determine if information and data are available to provide adequate support under one of the OBIA biological criteria. NMFS refers the reader to the Navy's 2016 SDEIS/SOEIS, subsection 4.2.2.2.5 and Appendix C for more detail on the analysis for potential OBIAs as part of this 2017 action. As part of the ongoing Adaptive Management component of the 2012 final rule, and in preparation for the DSEIS/SOEIS, NMFS and Navy reviewed potential OBIAs. This process included conducting a comprehensive assessment of newly available peer-reviewed scientific data, information, or survey data on marine areas that met the geographic eligibility requirements for consideration as OBIAs and reviewing the updated WDPA (2016); 2014 United Nations List of Protected Areas (Deguignet *et al.,* 2014), the Convention on Biological Diversity; MPA Global (Wood, 2007), the Marine Conservation Institute MPAtlas (2015); and cetaceanhabitat.org (see the Navy's DSEIS/OEIS, subsection 4.2.2.2.5 for a more detailed description of the analyses provided here).

Based on this extensive review (including examination of new data for areas that previously did not meet the OBIA criteria), a preliminary list of eight new candidate OBIAs and the expansion of four existing OBIAs were developed and presented to SMEs for review. During the SME review, it was suggested that another existing OBIA be considered for expansion, bringing the total number of existing OBIAs to be considered for expansion to five.

After additional evaluation, NMFS and Navy agreed that two of the new areas on the preliminary candidate list did not meet the criteria for designation as an OBIA. One of these (Southern Australia Southern Right Whale Calving Area) was determined to be solely within the coastal exclusion zone. The other (Tanner and Cortez Banks, which was included in an area considered in the original list of 22 OBIAs) was considered as possibly meeting the foraging biological criterion based on Calambokidis *et al.* (2015), which stated that this area represented a feeding area based on 52 sightings of blue whales in the region. However, most of these sightings occurred over 10 years ago, and the analysis did not consider data from satellite-tagged individuals. Irvine *et al.* (2014) used data from 171 blue whales tagged between 1993 and 2008 to define core areas where blue whales are most likely to occur. Tanner and Cortez Banks were within the distributional range of blue whales, but residence time within the banks was not significant. Ongoing studies of blue whale habitat (Mate *et al.,* 2015 and 2016) may or may not provide further insight into areas off the U.S. west coast that may meet the criteria for designation as OBIAs. Therefore, NMFS and Navy will continue to evaluate Tanner and Cortez Banks as a possible OBIA (subject to operational practicability) as new data become available.

In summary, NMFS and Navy agreed to a total of six new proposed OBIAs and the proposed expansion of five existing OBIAs. These were presented to Navy for a practicability review. The Navy determined that there were no practicability issues related to the use of SURTASS LFA sonar that would affect the implementation of these OBIAs, and in fact agreed to observe restrictions in each of these areas near requested mission areas as part of their 2016–2017 LOAs under the 2012 rule while public review of these areas is underway as part of the NEPA process (DSEIS/SOEIS) and rulemaking for the 2017–2022 period. While none of these new OBIAs were identified specifically for sperm whales, OBIA #28 (Perth Canyon) is designated for blue and pygmy blue whales with added protection for sperm whales. An area, the Hellenic Trench area in the Mediterranean Sea, was considered solely for sperm whales, but the core usage area was wholly within the coastal standoff range, so the area did not qualify as an OBIA based on the geographical criteria (while receiving similar treatment due to the fact that it was within the coastal standoff range).

A comprehensive list of the resulting 28 proposed OBIAs for SURTASS LFA sonar, as presented in the Navy's SDEIS/SOEIS, is provided in Table 31 below (see Navy's DSEIS/SOEIS, sections 3.3.5.3 and 4.2.2.2.5, and Appendix C for more detail on OBIAs).

TABLE 31—COMPREHENSIVE LIST OF MARINE MAMMAL OBIAS PROPOSED FOR SURTASS LFA SONAR

OBIA No.	OBIA name	Location	Species	Seasonal period	OBIA boundary change [1]	Notes
1	George's Bank	Northwest Atlantic Ocean	North Atlantic Right Whale.	Year-round	R	
2	Roseway Basin Right Whale Conservation Area.	Northwest Atlantic Ocean	North Atlantic Right Whale.	June through December, annually.		
3	Great South Channel, Gulf of Maine, and Stellwagen Bank NMS.	NW Atlantic Ocean/Gulf of Maine.	North Atlantic Right Whale.	January 1–November 14, annually.	E–CH	OBIA 3 boundary revised to encompass expansion of northeastern U.S. critical habitat for the North Atlantic right whale (Potential OBIA 2).
4	Southern U.S. Right Whale Critical Habitat.	NW Atlantic Ocean	North Atlantic Right Whale.	November 15–April 15, annually.	E–CH	OBIA 4 boundary revised to encompass expansion of southeastern U.S. critical habitat for the North Atlantic right whale (Potential OBIA 3).

TABLE 31—COMPREHENSIVE LIST OF MARINE MAMMAL OBIAS PROPOSED FOR SURTASS LFA SONAR—Continued

OBIA No.	OBIA name	Location	Species	Seasonal period	OBIA boundary change [1]	Notes
5	Gulf of Alaska [2]	Gulf of Alaska	North Pacific Right Whale	March through August, annually.	E, R	OBIA 5 boundary revised to encompass additional foraging area for the North Pacific right whale (Potential OBIA 11).
6	Navidad Bank [3]	Caribbean Sea/NW Atlantic Ocean.	Humpback Whale	December through April, annually.	R	Silver Bank no longer encompassed within OBIA boundary.
7	Coastal Waters of Gabon, Congo, and Equatorial Guinea.	SE Atlantic Ocean	Humpback and Blue Whale.	June through October, annually.	R	
8	Patagonian Shelf Break	SW Atlantic Ocean	Southern Elephant Seal	Year-round.		
9	Southern Right Whale Seasonal Habitat.	SW Atlantic Ocean	Southern Right Whale	May through December, annually.	R	
10	Central California [4]	NE Pacific Ocean	Blue and Humpback Whales.	June through November, annually.	E, R	OBIA 10 boundary revised to encompass additional foraging area for the blue and humpback whales (Potential OBIA 5).
11	Antarctic Convergence Zone.	Southern Ocean	Blue, Fin, Sei, Minke, Humpback Whales, and Southern right whale.	October through March, annually.	R	
12	Pilton and Chayvo Offshore Feeding Grounds.	Sea of Okhotsk	Western Pacific gray whale.	June through November, annually.	R	
13	Coastal Waters off Madagascar.	Western Indian Ocean	Humpback whale and Blue whale.	July through September, annually for humpback whale breeding; November through December for migrating blue whales.	R	
14	Madagascar Plateau, Madagascar Ridge, and Walters Shoal.	Western Indian Ocean	Pygmy blue whale, Humpback whale, and Bryde's whale.	November through December, annually.		
15	Ligurian-Corsican-Orovencal Basin and Western Pelagos Sanctuary.	Northern Mediterranean Sea.	Fin Whale	July to August, annually	R	
16	Penguin Bank, Hawaiian Islands Humpback Whale National Marine Sanctuary.	North-Central Pacific Ocean.	Humpback Whale	November through April, annually.	R	
17	Costa Rica Dome	Eastern Tropical Pacific Ocean.	Blue whale and Humpback whale.	Year-round.		
18	Great Barrier Reef Between.	Coral Sea/SW Pacific Ocean.	Humpback whale and Dwarf minke whale.	May through September, annually.	E, R	OBIA 18 boundary revised to encompass additional breeding/calving area for the humpback whale (Potential OBIA 8).
19	Bonney Upwelling	Southern Ocean	Blue whale, Pygmy blue whale, and Southern right whale.	December through May, annually.	R	
20	Northern Bay of Bengal and Head of Swatch-of-No-Ground (SoNG).	Bay of Bengal/N Indian Ocean.	Bryde's whale	Year-round	R	
21	Olympic Coast National Marine Sanctuary and the Prairie, Barkley Canyon, and Nitnat Canyon.	NE Pacific Ocean	Humpback whale	Olympic National Marine Sanctuary: December, January, March, and May, annually; The Prairie, Barkley Canyon, and Nitnat Canyon: June through September, annually.		
22	Abrolhos Bank	Southwest Atlantic Ocean	Humpback whale	August through November, annually.		
23	Grand Manan North Atlantic Right Whale Critical Habitat.	Bay of Fundy (Canada)	North Atlantic right whale	June through December, annually.		Potential OBIA 1; Canadian critical habitat for the North Atlantic right whale.
24	Eastern Gulf of Mexico	Eastern Gulf of Mexico	Bryde's whale	Year-round		Potential OBIA 4.
25	Southern Chile Coastal Waters.	Gulf of Corcovado, southeast Pacific Ocean (SW Chile).	Blue whale	February to April, annually.		Potential OBIA 6.
26	Offshore Sri Lanka	North-Central Indian Ocean.	Blue whale	December through April, annually.		Potential OBIA 7.
27	Camden Sound/Kimberly Region.	Southeast Indian Ocean (NW Australia).	Humpback whale	June through September, annually.		Potential OBIA 9.

TABLE 31—COMPREHENSIVE LIST OF MARINE MAMMAL OBIAS PROPOSED FOR SURTASS LFA SONAR—Continued

OBIA No.	OBIA name	Location	Species	Seasonal period	OBIA boundary change [1]	Notes
28	Perth Canyon	Southeast Indian Ocean (SW Australia).	Pygmy blue whale/Blue whale.	January through May, annually.		Potential OBIA 10.

[1] E = Expanded per data justification; E–CH = Expanded to encompass designated critical habitat; R = landward boundary revised per higher resolution 12-nmi data.
[2] Name changed to indicate expansion of OBIA beyond extent of North Pacific right whale critical habitat.
[3] Name changed to indicate that Silver Bank is no longer encompassed within OBIA boundary (instead, is encompassed in and afforded protection under the coastal standoff range for SURTASS LFA Sonar).
[4] Name changed to indicate that expanded OBIA boundary is not coterminous with sanctuaries' boundaries.

NMFS' Additional 1-km Buffer Zone Around an OBIA Perimeter

NMFS also proposes an OBIA ''buffer'' requirement that would restrict the operation of SURTASS LFA sonar so that the SURTASS LFA sonar sound field does not exceed 180 dB re: 1 μPa at a distance of 1 km (0.62 mi; 0.54 nmi) seaward of the outer perimeter of any OBIA designated for marine mammals during the specified period. The Navy has noted in previous authorizations that this measure is practicable and it would adhere to this additional measure, so there would effectively be a 174-dB exclusion zone around any OBIA perimeter with implementation of this buffer.

OBIAs are mitigation measures for SURTASS LFA sonar and are based on the system's unique operating and physical characteristics and should not be assumed to be appropriate for other activities.

Critical Habitat

Under Section 7 of the ESA, all Federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify its designated critical habitat. Critical habitat is not designated in foreign countries or any other areas outside of U.S. jurisdiction. Critical habitat within the U.S. Exclusive Economic Zone (EEZ) has been designated for six of the 22 of the ESA-listed marine mammal species. Of the designated critical habitat for marine mammals, four areas of critical habitat are located at a distance sufficient from shore to potentially be affected by SURTASS LFA sonar: Critical habitat for the north Atlantic right whale (NARW), north Pacific right whale (NPRW), Hawaiian monk seal, and Steller sea lion. The Navy proposes that the sound field would not exceed 180 dB re: 1 μPa in the areas designated as critical habitat for the NARW and NPRW.

In 2016, critical habitat for the NARW was expanded to include a total of 29,763 nmi^2 (102,084 km^2) of habitat in the Gulf of Maine and Georges Bank area as well as off the southeast U.S. Atlantic coast. The southern critical habitat area was expanded by 341 nmi (1,170 km^2) and includes nearshore and offshore waters from Cape Fear, NC south to approximately 27 nmi (50 km) south of Cape Canaveral, FL (NOAA, 2016). OBIAs that encompass the critical habitat for the NARW were established in previous rulemakings and expansion of these OBIAs to encompass the expanded critical habitat has been proposed in the Navy's 2016 SDEIS/SOEIS and rulemaking/LOA application. These existing/proposed OBIAs encompass the critical habitats located beyond the coastal standoff range, including the recent critical habitat expansions, of the NARW on Georges Bank (OBIA #1); Roseway Basin Right Whale Conservation Area (OBIA #2); portions of the Great South Channel, Gulf of Maine, and Stellwagen Bank National Marine Sanctuary that are located outside of 22 km (13. mi; 12 nmi) (OBIA #3 Grand Manan NARW critical habitat in the Bay of Fundy (OBIA 23); and the southeastern U.S. NARW seasonal critical habitat (OBIA #4).

In 2008, NMFS designated two areas of critical habitat for the NPRW. One of these locations is in the Bering Sea, where the Navy will not conduct SURTASS LFA sonar activities, and the other is in the Gulf of Alaska. For the designated critical habitat area in the Gulf of Alaska, the Navy designated an OBIA (#5) in previous rulemaking that bounds the designated critical habitat for the species. This OBIA is additionally proposed for expansion in the Navy's 2016 DSEIS/SOEIS to include waters beyond the critical habitat boundary where more recent sightings have been documented for this species.

Much of the proposed critical habitat for Hawaiian monk seals is located within the coastal standoff range for SURTASS LFA sonar (22 km (13. mi; 12 nmi) of any land) and no existing or proposed OBIA encompasses the entirety of Hawaiian monk seal critical habitat. However, OBIA (#16) encompasses the Penguin Bank portion of the Hawaiian Islands Humpback Whale National Marine Sanctuary. The portion of the Hawaiian monk seal critical habitat that may occur beyond the coastal standoff range for SURTASS LFA sonar is the lowest portion of the water column, including the waters 33 ft (10 m) above the seafloor and the seafloor, seaward from certain areas of the Hawaiian Island's shoreline to the 656-ft (200 m) isobath.

Much of the critical habitat for the Steller sea lion is located in the Bering Sea, where SURTASS LFA sonar will not operate. No proposed OBIA encompasses the Gulf of Alaska critical habitat for Steller sea lions. Although it is possible that SURTASS LFA sonar will be operated in the western Gulf of Alaska where the eastern critical habitat for the Steller sea lion is located and some of that habitat lies beyond 22 km (13. mi; 12 nmi) from shore (*i.e.,* the coastal standoff range for SURTASS LFA sonar), the water depth in which the habitat is found is sufficiently shallow that it is unlikely that the Navy would operate SURTASS LFA sonar in the vicinity.

Both the Navy and NMFS Protected Resources Permits and Conservation Division are consulting with NMFS Protected Resources Interagency Cooperation Division on effects on critical habitat pursuant to section 7 of the ESA.

Coastal Standoff Zone

The Navy has proposed to restrict SURTASS LFA sonar activities within 22 km (13. mi; 12 nmi) of any coastline, including islands, such that the SURTASS LFA sonar-generated sound field will not exceed 180 dB re: 1 μPa (RL) at that seaward distance. This measure is intended to minimize both the severity and scale of effects to marine mammals by avoiding the higher densities of many species that may be found in coastal areas and it is practicable. Additionally, this restriction limits exposures of marine mammals to high-level sounds in the vicinity of geographical features that

have been associated with some stranding events, *i.e.,* enclosed bays, narrow channels, etc.

Operational Exception

It may be necessary for SURTASS LFA sonar transmissions to be at or above 180 dB re 1 µPa (rms) within the boundaries of a designated OBIA when: (1) Operationally necessary to continue tracking an existing underwater contact; or (2) operationally necessary to detect a new underwater contact within the OBIA. This exception will not apply to routine training and testing with the SURTASS LFA sonar systems.

White Paper on ''Identifying Areas of Biological Importance to Cetaceans in Data-Poor Regions''

As discussed above, NMFS convened a panel of SMEs to help identify marine mammal OBIAs relevant to the Navy's use of SURTASS LFA sonar. Separately, we asked a NMFS scientist, who was also on that same panel, to help address a recommendation that NMFS consider a global habitat model (Kaschner *et al.,* 2006) in the development of OBIAs. In addition to providing the requested input (which essentially concluded that using the Kaschner model was not advisable for several reasons), this NMFS scientist consulted with other NMFS scientists to provide some additional guidance in alternate methods for considering data poor areas and drafted a white paper entitled, ''Identifying Areas of Biological Importance to Cetaceans in Data-Poor Regions'' (White Paper).

In the White Paper, the authors acknowledge that ''[m]anagement decisions that NMFS must make often incorporate species-specific information on cetacean distribution, population density, abundance, or ecology to identify regions of biological importance. When relevant cetacean data are lacking for the appropriate region or spatial scale, it is not acceptable to proceed in the decision making process as if the 'no data' scenario were equivalent to 'zero population density' or 'no biological importance.' '' The authors recognize this is not an assumption that NMFS makes in regard to identification of OBIAs by stating ''[t]his is acknowledged in the screening criteria for identification of OBIA Nominees, which state, 'For locations/regions and species and stocks for which density information is limited or not available, high density areas should be defined (if appropriate) using some combination of the following: Available data, regional expertise, and/or habitat suitability models utilizing static and/or predictable dynamic oceanographic features and other factors that have been shown to be associated with high marine mammal densities.' '' We additionally note here that the absence of an OBIA does not mean that NMFS assumes no marine mammal presence or biological importance. Even where there are no OBIAs, NMFS continues to impose mitigation measures (*i.e.,* shut down measures with highly effective monitoring and coastal standoff zones) because NMFS recognizes that marine mammals could be present. The White Paper authors acknowledge that for much of the world's oceans, data on cetacean distribution or density do not exist, and suggest that ''[w]hen providing management advice for such data-poor areas, it is prudent to ask whether an analytical model should be used to infer patterns of distribution or density, or if a broader approach that incorporates expert opinion from multiple sources of information would be more reliable and more practical.''

The White Paper authors considered examples of an approach relying on minimal information (analogous to a data-poor scenario) and provided Kaschner *et al.* (2006) as an example of such an approach. In this example, Kaschner *et al.* used models based on a synthesis of ''existing and often general qualitative observations about the spatial and temporal relationships between basic environmental conditions and a given species' presence'' to ''develop a generic quantitative approach to predict the average annual geographic ranges'' of marine mammal species on a global scale. Several environmental correlates including depth, sea surface temperature, distance to land, and mean annual distance to ice edge were used in the Kaschner effort. After evaluating four case studies from the Kaschner *et al.* (2006) study for predicting gray whale, northern right whale dolphin, North Atlantic right whale, and narwhal distribution, the authors of the White Paper concluded that '[t]he predictions from the four case studies . . . included errors of omission (exclusion of areas of known habitat) and commission (inclusion of areas that are not known to be habitat) that could have important implications if the model predictions alone were used for decision making in a conservation or management context.'' Specifically, the White Paper illustrated that the Kaschner *et al.* effort omitted a considerable portion of known gray whale habitat; overestimated the range of suitable habitat for northern right whale dolphins off the U.S. West Coast (noting that species-specific models based on dedicated shipboard surveys more correctly identified suitable habitat); predicted habitat for North Atlantic right whales in large areas where they have never been recorded; and predicted suitable habitat for narwhal that did not correspond with their known distribution. Noting these errors, the White Paper authors further make a distinction between a species ''fundamental niche'' (which is purportedly predicted by Kashner *et al.'s* [2006] models) and a species ''realized niche'' (a species' observed distribution), ''which is a modification of the fundamental niche due to interspecific and intraspecific dynamics, interactions with the physical environment, and historical events'', and ''is typically relevant in the conservation and management context.'' In short, the White Paper illustrates that such predictive models in data-poor situations may not be the most appropriate methodology in the conservation and management decision making context due to potential errors of omission and commission and the differences between ''fundamental niches'' predicted by such models and a species' ''realized niche.'' NMFS concurred with this recommendation and elected not to use the Kaschner paper as a basis for identifying additional protective areas.

For data-poor scenarios, the White Paper recommends considering general guidelines based on ecological principles to identify areas of biological importance and potential restriction for cetaceans. However, the authors conclude the White Paper by stating that ''. . . the question of whether the decision-making process and management actions should be precautionary will affect the type of guidelines that should be used to make inferences about cetacean density and biological importance in data-poor regions.''

In *NRDC* v. *Pritzker,* referring to the White Paper, the Ninth Circuit stated that NMFS, in its 2012 rule, ''did not give adequate protection to areas of the world's oceans flagged by its own experts as biologically important, based on the present lack of data sufficient to meet the Fisheries Service's [OBIA] designation criteria, even though NMFS' own experts acknowledged that [f]or much of the world's oceans, data on cetacean distribution or density do not exist.'' NRDC v. Pritzker, 828 F.3d 1125 at 1142.

In the 2012 rule, NMFS evaluated the White Paper through the lens of the OBIA process, which may have limited fuller consideration of the recommendation. Here, for this 2017

rulemaking, NMFS explains how it examines the White Paper's recommendations in the context of the least practicable adverse impact standard. The White Paper recommended the following general guidelines based on ecological principles to identify areas of biological importance for cetaceans:

(1) Designation of all continental shelf waters and waters 100 km seaward of the continental slope as biologically important habitat for marine mammals;

(2) Establishment of OBIAs within 100 km of all islands and seamounts that rise within 500 m of the surface; and

(3) Nomination of high productivity regions that are not included in the continental shelf, continental slope, seamount, and island ecosystems above as biologically important areas.

These recommendations are evaluated below in the context of the proposed SURTASS LFA sonar activities and the other mitigation measures that are proposed to minimize the impacts on the affected marine mammal species or stocks from these activities. To reiterate, NMFS is proposing several mitigation measures for SURTASS LFA sonar activities that: (1) Minimize or alleviate the likelihood of injury, TTS, or more severe behavioral responses (the 180-dB LFA mitigation zone plus 1-km buffer zone shutdown measure); (2) minimize or avoid behavioral impacts in known important areas that would have a higher potential to have negative energetic effects or deleterious effects on reproduction that could reduce the likelihood of survival or reproductive success (OBIAs); and (3) generally lessen the total number of takes of many species with coastal or shelf habitat preferences (coastal standoff). The nature and context of how LFA sonar is used in these activities (only 4 ships operating in open oceans areas and typically using active sonar only sporadically) is such that impacts to any individual are expected to be limited primarily because of the short duration of exposure to any individual mammal. In addition, as explained above, an animal would need to be fairly close to the source for the entire length of a transmission to experience injury; exposures occur in open water areas in which animals can more readily avoid the source or find alternate habitat relatively easily; and highly effective mitigation measures have been adopted that further ensure impacts are limited to lower-level effects with limited potential to significantly alter natural behavior patterns in ways that would affect the fitness of individuals.

SURTASS LFA operates at 100 to 500 Hz. This frequency is far below the best hearing sensitivity for MF and HF species. HF species have their best hearing between 60 and 125 kHz (best around 100 kHz), which means that a sound at 500 Hz (and below) has to be at least 50 dB louder for HF species to hear it as well as a sound in their best hearing range. MF cetaceans have their best hearing between 40 and 80 kHz (best around 55 kHz), which means that at 500 Hz and below, the sound has to be 40 dB louder, or more, for this group to hear the sound as well as a sound in their best hearing range. This means that these species have to be much closer to a sound to hear it, which means that, generally, they have to be much closer to the SURTASS sonar source for it to cause PTS, TTS, or a behavioral response. Additionally, during the 1997 to 1998 SURTASS LFA Sonar Low Frequency Sound Scientific Research Program (LFS SRP), numerous odontocete species (*i.e.,* MF and HF hearing specialists) and pinniped species were sighted in the vicinity of the sound exposure tests and showed no immediately obvious responses or changes in sighting rates as a function of source conditions, which likely produced received levels similar to those that produced minor short-term behavioral responses in the baleen whales (*i.e.,* LF hearing specialists).

As described in the 2012 rule, NMFS believes that MF and HF odontocete hearing specialists have such reduced sensitivity to the LFA sonar source that limiting ensonification in OBIAs for those animals would not afford meaningful protection beyond that which is already incurred by implementing a shutdown when any marine mammal enters the LFA mitigation and buffer zones. For the same reason, our discussion of the White Paper recommendations will be limited to lower frequency sensitive species, although it is worth noting that the existing 22 km coastal standoff ensures a reduced number of potential takes of many MF and HF species with coastal habitat preferences.

As noted previously, in evaluating how mitigation may or may not be appropriate to ensure the least practicable adverse impact on species or stocks and their habitat, we carefully balance the expected benefits of the mitigation measures against the practicability of implementation. This balancing considers the following factors: (1) The manner in which, and the degree to which, the implementation of the measure(s) is expected to reduce impacts to marine mammal species or stocks, their habitat, and their availability for subsistence uses (where relevant). Among other things, this analysis will consider the nature of the proposed adverse impact (likelihood, scope, range), the likelihood that the measure will be effective if implemented, and the likelihood of successful implementation; (2) the practicability of the measures for applicant implementation. Practicability of implementation may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity (16 U.S.C. 1371(a)(5)(A)(ii)).

In addition to the considerations discussed above, NMFS' evaluation of the recommendations of the White Paper is described below:

Continental Shelf Waters and Waters 100 km Seaward of Continental Slope

Reduction of Adverse Impacts to Marine Mammal Species and Stocks and Their Habitat

The Navy already implements a coastal standoff zone of 22 km, which includes large parts of the continental shelf around the world, includes parts of the slope in some areas, and reduces potential takes of many marine mammal species and stocks with coastal habitat preferences. The White Paper provided little basis for the 100 km buffer seaward of the continental slope and we have found no specific literature to support such a broad buffer in all areas. Therefore, in the context of this evaluation, NMFS first considered if there was evidence of the importance of the continental slope itself, without any consideration for a buffer. In support of understanding the additional value of expanding this standoff to 100 km beyond the continental slope margin, NMFS assessed known marine mammal density information for lower frequency hearing specialists from the U.S. East (Roberts *et al.,* 2016) and West coasts and compared these densities to bathymetry, specifically looking at areas of high densities compared to the continental shelf and slopes on both coasts (NOAA, 2009). This assessment and comparison focused on the U.S. East and West coasts as an example due to the fact that relatively more data is available for these waters. The comparison showed that mapped areas of highest densities are not always related to the slope or shelf. For example, while fin whales in the eastern U.S. waters show higher densities on the continental shelf and slope, higher densities of fin whales in western U.S. waters are much farther out to sea from

the continental shelf or slope (well beyond 100 km beyond the slope), and the same was found for sperm whales. Some mysticetes do show higher densities on the continental shelf, and some have higher densities along the continental slope, which may also vary among seasons (*e.g.,* fin whales on the east coast). Generally, density information from the Atlantic showed some enhanced densities along the slope, but only for certain species in certain seasons, and did not indicate universally high densities along the slope. Humpback whales (especially around Cape Hatteras) seem to show some higher densities around the slope, but also seaward of the slope, especially in winters. However, the shelf slope is closer to the shore around Cape Hatteras than most places along the eastern seaboard, and while humpbacks may show higher densities along the slope in this area, the same cannot be said of humpbacks further south (*i.e.,* in Florida) where the slope is much further offshore. Right whales show higher densities closer to shore along the Atlantic coast, while sperm whales are farther out past the slope on the Atlantic coast, as they are deep divers. Density data from the Pacific coast show higher densities of blue whales on the shelf and slope, while fin whales and sperm whales are observed in waters beyond the continental slope. Gray whales show higher densities closer to shore along the Pacific coast, while humpbacks seem to be along the slope and beyond in some places. Using the continental United States densities of these lower frequency sensitive species as examples showed that densities are sometimes higher within 100 km of the slope, but are often higher elsewhere (off the slope) and many of these high density areas are highly seasonal. Therefore, restricting activities within 100 km of the entire continental shelf and slope is of limited value year-round.

We have emphasized in the OBIA context that although we are identifying ''known'' biologically important areas, other biologically important areas have yet to be identified, especially for data-poor areas. However, it is important to note that much more research is conducted close to shore, in the United States and other areas, and typically areas within 100 km of the slope are much less likely to be data-poor areas. NOAA, Navy, other agencies, and many independent researchers have been conducting marine mammal research throughout the U.S. EEZ (200 miles from shore) for decades. While higher densities of LF species may be found in some shelf and slope areas close to shore, which may indicate some important habitat features are present for some of these species, these higher densities are not associated with important behaviors in the same way OBIAs represent areas that are biologically important to a species or stock. Moreover, the prevalence of research makes it much less likely that important areas closer to shore have been missed.

NMFS acknowledges that large ocean areas such as the continental shelf and slope and seamounts may exhibit habitat features that provide important habitat for marine mammals at certain times—as the White Paper states, the higher productivity in these areas could generally be associated with higher densities of marine mammals. However, due to the fact that other mitigation measures would already limit most take of marine mammals to lower Level B behavioral harassment, there is little to no indication that there is a risk to marine mammal species or stocks that would be avoided or lessened if waters 100 km seaward of the continental slope were subject to restrictions. Of note, of the 22 OBIAs in the 2012 proposed rule, 17 of these included continental shelf/slope areas and similar coastal waters. In addition, these waters of the continental shelf/slope would be afforded significant protection due to the coastal standoff mitigation measure.

Given the mitigation measures already in place, and proposed for this rule, that would limit most takes of marine mammals to lower Level B behavioral harassment, the only additional benefit to restricting activities in continental shelf waters and waters 100 km seaward of continental slope would be a further, though not significant, reduction in these lower level behavioral takes in those areas. As discussed above, not all behavioral responses may result in take and not all behavioral takes necessarily result in fitness consequences to individuals that have the potential to translate to population consequences to the species or stock. For example, energetic costs of short-term intermittent exposures would be unlikely to affect individuals such that vital rates of the population are affected.

In addition to the mitigation measures in place, and proposed again, for SURTASS LFA sonar use that would already provide protection for continental shelf/slope waters, it is important to note that there are a total of four SURTASS LFA sonar ships that would each be operating up to a maximum of 255 transmission hours per year (amounting to approximately 40 days maximum of LFA, which is spread over the entire year). It is not known, nor does the Navy indicate in its plans, that activities of these four vessels would be focused in any specified area. It is likely, based on past monitoring reports, that the activities of these four vessels are spread out and would not necessarily overlap marine mammal high-density areas for an extended period of time. Although some LFA sonar activities could, on occasion, overlap marine mammal high-density areas, the Navy is still bound by the 12% cap on Level B takes per marine mammal stock annually. However, because areas of marine mammal high density are dispersed over large ocean areas for each species, it is certain that LFA sonar would not implicate all of these areas for a given species or stock in any year. Given the expanse of these areas (*e.g.,* entire eastern and western coast of the U.S. for continental shelf/slope), even if part of the area would be exposed to LFA sonar, there would still be ample similar habitat areas available for species/stocks if it were preferred habitat.

Practicability

NMFS and the Navy evaluated the practicability of implementation of the White Paper's recommended continental shelf, slope, and 100-km seaward The Navy has indicated, and NMFS concurs, that additional continental shelf, slope, and 100 km seaward restrictions beyond the existing coastal standoff and OBIAs would unacceptably impact the Navy's national security mission as large areas of the ocean would be restricted where targets of interest may operate. The mission of SURTASS LFA sonar is to detect quieter and harder to-find foreign submarines at greater distances. For the system to perform its national defense function, the Navy must operate within coastal, littoral waters in order to track relevant targets. The Navy has indicated that if large areas of the continental shelf or slope were restricted, the Navy would not have the benefit of being able to train and operate in these challenging environments, while adversaries would use these distinctive geographic features to their advantage. Year-round access to all of these areas of challenging topography and bathymetry is necessary as the Navy cannot telegraph to potential adversaries that it will not be operating in large parts of the ocean for long periods of time.

Conclusion

In summary, while restricting SURTASS LFA sonar use in waters 100 km seaward from the continental slope could potentially reduce individual exposures or behavioral responses for

certain species and potentially provide some additional protection of preferred habitat in some cases, density data indicates that certain mysticetes and sperm whales have higher densities in areas other than the continental slope. Therefore, limiting activities in these large areas when activities are comparatively low (no more than four ships each operating up to a maximum of 255 transmission hours spread across expansive distances and over the course of an entire year), and the existing risks to the affected species and stocks are low, would provide limited discernible benefit. This is especially true given that many mysticete species have latitudinal seasonal movements that would render these large areas of less, or no, importance to these species in certain portions of the year. Given the limited potential for additional reduction of impacts to marine mammal species beyond what the existing mitigation measures described in this proposed rule provide, and the high degree of impracticability (significant impacts on mission effectiveness), NMFS has preliminarily determined that this measure is not required.

Restrictions Within 100 km of All Islands and Seamounts That Rise to Within 500 m of the Surface

Reduction of Adverse Impacts to Marine Mammal Species and Stocks and Their Habitat

Currently, waters surrounding all islands are already protected by the coastal standoff zone (22km). As discussed previously, this means that SURTASS LFA sonar received levels would not exceed 180 dB re 1µPa within 22 km (12 nmi) from the coastline. This 22 km coastal standoff was determined in previous analyses (DoN, 2007) to result in the lowest potential risk to marine species, particularly marine mammals. Morato *et al.* (2010) state that seamounts were found to have higher species diversity within 30–40 km of the summit, and tended to aggregate some visitor species (Morato *et al.,* 2008). However, the authors did not demonstrate that this behavior can be generalized to be universally applicable to all species at all times.

Morato *et al.* (2008) examined seamounts for their effect on aggregating visitors and noted that seamounts may act as feeding stations for some visitors, but not all seamounts seem to be equally important for these associations. While Morato *et al.* (2008) only examined seamounts in the Azores, the authors noted that only seamounts shallower than 400 m depth showed significant aggregation effects. Their results indicated that some marine predators (common dolphin (*Delphinus delphis*) and other non-marine mammal species such as fish and invertebrates) were significantly more abundant in the vicinity of some shallow-water seamount summits, there was no demonstrated seamount association for bottlenose dolphins (*Tursiops truncatus*), spotted dolphin (*Stenella frontalis*), or sperm whales (*Physeter macrocephalus*).

Along the northeastern U.S. continental shelf, cetaceans tend to frequent regions based on food preferences (*i.e.,* areas where preferred prey aggregate), with picscivores (fish-eating; *e.g.,* humpback, fin, and minke whales as well as bottlenose, Atlantic white-sided, and common dolphins) being most abundant over shallow banks in the western Gulf of Maine and mid-shelf east of Chesapeake Bay; planktivores (plankton-eating; *e.g.,* right, blue, and sei whales) being most abundant in the western Gulf of Maine and over the western and southern portions of Georges Bank; and teuthivores (squid eaters, *e.g.,* sperm whales) most abundant at the shelf edge (Fiedler, 2002). While there have been observations of humpback whales lingering at seamounts (Mate *et al.,* 2007), the purpose of these aggregations is not clear, and it may be that they are feeding, regrouping, or simply using them for navigation between feeding and breeding grounds (Fiedler, 2002; Mate *et al.,* 2007); therefore, the role of the seamount habitat is not clear. According to Pitcher *et al.* (2007), there have been very few observations of persistently high phytoplankton biomass (*i.e.,* high primary production, usually estimated from chlorophyll concentrations) over seamounts and, where such effects have been reported, all were from seamounts with summits shallower than 300 m and the effects were not persistent, lasting only a few days at most. Therefore, it may be that food sources for many baleen whales are not concentrated in great enough quantities for significant enough time periods to serve as important feeding areas. While some odontocete (toothed) whales have been suggested to utilize seamount features for prey capture (Pitcher *et al.* (2007)), the authors conclude that the available evidence suggests that, ''unlike many other members of seamount communities, the vast majority of marine mammal species are probably only loosely associated with particular seamounts.''

Practicability

NMFS and the Navy evaluated the practicability of implementation of the White Paper's recommendation regarding seamounts that rise to within 500 m of the sea surface. The Navy has indicated, and NMFS concurs, that additional restrictions within 100 km of all islands and seamounts that rise to within 500 m of the surface beyond the existing coastal standoff and OBIAs would unacceptably impact their national security mission. The mission of SURTASS LFA sonar is to detect quieter and harder to-find foreign submarines at greater distances. Seamounts provide complex bathymetric and oceanographic conditions that can be used by submarines to hide and avoid detection. Training, testing and operations in and around seamounts is vitally important for the Navy to understand how these features can be exploited to evade detection. If the Navy's use of SURTASS was restricted within 100 km of these features, the Navy would not have the benefit of being able to train and operate in these challenging environments, while adversaries would use these distinctive geographic features to their advantage. Year-round access to all of these areas of challenging topography and bathymetry is necessary, as the Navy cannot telegraph to potential adversaries that it will not be operating in specific seamounts areas for long periods of time.

Conclusion

In summary, while restricting LFA sonar use in areas 100 km seaward from islands and seamounts could potentially reduce take numbers for some individuals within a limited number of species and potentially provide some additional protection of preferred habitat in some cases (potential feeding), data indicate that marine mammal associations with these areas are limited, and the benefits would be, at best, ephemeral. Furthermore, the potential avoidance would likely be more associated with mid-frequency and high frequency species, while low frequency species are more of a concern for potential effects. Limiting SURTASS LFA sonar activities in these large areas when activities are already comparatively low (four ships each operating a maximum of 255 transmission hours spread across expansive distances and an entire year), and the existing risks to the affected species and stocks are comparatively low (limited to lower level Level B behavioral harassment), would provide limited additional benefit to individual marine mammals, but would not change the effect on the population, species, or stock. Given the limited potential for additional reduction of impacts to a

small number of marine mammal species and the high degree of impracticability (serious impacts on mission effectiveness), NMFS has preliminarily determined that this measure should not be required.

High Productivity Regions That Are Not Included in the Continental Shelf, Continental Slope, Seamount, and Island Ecosystems

Reduction of Adverse Impacts to Marine Mammal Species and Stocks and Their Habitat

Regions of high productivity have the potential to be important foraging habitat for some species of marine mammals at certain times of the year and could potentially correlate with either higher densities and/or feeding behaviors through parts of their area. Productive areas of the ocean are difficult to consistently define due to interannual spatial and temporal variability. High productivity areas have ephemeral boundaries that are difficult to define and do not always persist interannually or within the same defined region. While there is not one definitive guide to the productive areas of the oceans, NMFS and the Navy examined these areas in the 2017/2018 SURTASS operation area.

These areas are typically very large, which means that animals are not constrained in high densities in a particular feeding area and there are typically ample alternative opportunities to move into, or within, other parts of these high productivity areas should they choose to avoid the area around the SURTASS vessel. Additionally, these areas are often associated with coastal areas, for instance, Houston and Wolverton (2009) show areas of high/highest productivity that are either (1) confined to high latitude (polar) areas that are not in the SURTASS LFA sonar operational area, or (2) very coastally and typically seasonally associated with areas of high coastal run off (*i.e.*. by mouth of Mississippi River, mouth of Amazon river), which are already encompassed by the coastal standoff range. Additionally, as noted above, given the current mitigation scheme for SURTASS LFA sonar, the existing risk to marine mammal species and stocks is low and is limited to Level B harassment (significant disruption or abandonment of behavioral patterns) due to existing mitigation measures.

Practicability

NMFS and the Navy evaluated the practicability of implementation of the White Paper's recommended restrictions on high productivity. The Navy has indicated, and NMFS concurs, that additional restrictions in high productivity regions that are not included in the continental shelf, continental slope, seamount, and island ecosystems beyond the existing coastal standoff and OBIAs would unacceptably impact their national security mission. The mission of SURTASS LFA sonar is to detect quieter and harder to-find foreign submarines at greater distances. For the system to perform its national defense function, the Navy must operate within coastal, littoral waters, which may include high productivity areas, in order to track relevant targets. If large areas of the ocean were excluded from potential usage, the Navy would not have the benefit of being able to train and operate in these challenging environments, while adversaries would use these distinctive geographic features to their advantage. Year-round access to all of these areas of challenging topography and bathymetry is necessary as the Navy cannot telegraph to potential adversaries that it will not be operating in large parts of the ocean for long periods of time. Also, because high productivity areas are highly variable and ephemeral, implementation would not be operationally practicable for the Navy.

Conclusion

Restricting use of SURTASS LFA sonar seasonally in high productivity areas could potentially reduce take numbers for certain species and potentially provide some additional protection of preferred or feeding habitat in some cases. However, as noted above, the size of the primary productivity areas is such that animals could likely easily access adjacent high productivity areas should they be temporarily diverted away from a particular area due to a SURTASS LFA sonar source. In addition, marine mammals are certainly not concentrated through all or even most of these large areas for all or even most of the time when productivity is highest, so a broad limitation of this nature would likely unnecessarily limit LFA sonar activities while providing negligible protective benefits to marine mammal species or stocks. Limiting activities in these large areas when activities are already comparatively low (four ships operating approximately 255 transmission hours spread across expansive ocean distances), and the existing risks to the affected species and stocks are comparatively low, would provide limited additional protection. Given the limited potential for additional reduction of impacts to marine mammal species and the high degree of impracticability (serious impacts on mission effectiveness), NMFS has preliminarily determined that this measure would not be required.

White Paper Overall Conclusion

In conclusion, NMFS has considered the White Paper recommendations. While we acknowledge that these measures could potentially reduce the numbers of take for some individual marine mammals within a limited number of species, or may add some small degree of protection to preferred habitat or feeding behaviors in certain circumstances, this limited and uncertain benefit to the affected species or stocks and their habitat is not justified when considered against the degree of impracticability for Navy implementation. This is especially true in light of the operational impacts and the anticipated success of the significant mitigation measures that the Navy has already been implementing (and which have provided a large degree of protection and have limited takes to lower level Level B behavioral harassment) to reduce impacts.

Overall Mitigation Conclusions

NMFS has determined preliminarily that the Navy's proposed mitigation measures together with the additional mitigation measures proposed by NMFS provide the 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, and which include consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. NMFS provides further details in the following section.

NMFS believes that the shutdown in the LFA sonar mitigation and buffer zones, based on detection from highly effective visual monitoring, passive acoustic monitoring, active acoustic monitoring using HF/M3 sonar with ramp-up procedures, and geographic restriction measures proposed will enable the Navy to: (1) Avoid Level A harassment of marine mammals; (2) minimize the incidences of marine mammals exposed to SURTASS LFA sonar sound levels associated with TTS and higher levels of significant behavioral disruptions under Level B harassment; ands; and (3) minimize exposure of marine mammal takes in areas and during times of important behaviors, such as feeding, migrating, calving, or breeding based on the best available information.

The SURTASS LFA sonar signal is not expected to cause mortality, serious injury, PTS, or TTS due to implementation of the shutdown zone mitigation measures, which include the Navy's proposed 180 dB rms isopleth shutdown zone (LFA Mitigation Zone) as well as an additional 1 km buffer proposed by NMFS. Although the distance to the 180 dB isopleth is based on existing environmental conditions, the distance is frequently, but not always, approximately 1 km. Implementing an additional 1-km buffer zone increases the extent around the LFA sonar array and vessel, which will ensure that no marine mammals are exposed to an SPL greater than about 174 dB re: 1 μPa rms. As shown in Table 29 above, the TTS threshold for LF cetaceans, which are the hearing group most likely affected by SURTASS LFA sonar, is 179 dB SEL. A low-frequency cetacean would need to remain within 41 meters (135 ft) for an entire LFA sonar transmission (60 seconds) to potentially experience PTS and within 413 m (1,345 ft) for an entire LFA sonar transmission (60 seconds) to potentially experience TTS. Therefore, implementation of the shutdown zone mitigation measures would minimize the potential for LF cetaceans to be exposed to LFA sonar at levels associated with the onset of TTS. The best information available indicates that effects from SPLs less than 180 dB re: 1 μPa will be limited to short-term, Level B behavioral harassment, and animals are expected to return to behaviors shortly after exposure.

As described above, NMFS has included a robust suite of mitigation measures for world-wide SURTASS LFA sonar operation that: Minimize or alleviate the likelihood of injury, TTS, or more severe behavioral responses due to implementation of shutdown measures (implementation of the LFA mitigation zone plus a 1 km buffer); minimize or avoid behavioral impacts in important areas where these impacts would be more likely to have negative energetic effects, or deleterious effects on reproduction, which could reduce the likelihood of survival or reproductive success (measures to avoid or lessen exposures of marine mammals within OBIAs); and generally lessen the total number of takes of many species due to implementation of coastal standoff measures. These measures, taken together, constitute the means of effecting the least practicable adverse impact on the affected species and stocks worldwide and for operating areas in the upcoming annual LOA period. We also carefully evaluated the potential inclusion of additional measures in data-poor areas (White Paper recommendations) before reaching this conclusion. With regard to habitat, NMFS has not identified any impacts to habitat from SURTASS LFA sonar that persist beyond the time and space that the impacts to marine mammals themselves could occur. Therefore, the mitigation measures that address important areas that serve as important habitat for marine mammals in all or part of the year (*i.e.,* OBIAs and the coastal standoff), appropriately address effects on marine mammal species and stocks and their habitat.

In the 2012 rule, NMFS and the Navy annually considered how new information, from anywhere in the world, should be considered in an adaptive management context—including whether this new information would support the identification of new OBIAs or other mitigation measures. Moving forward, new information will still be considered annually, but only in the context of the area in which SURTASS LFA assets will be operating in that year. This approach makes sense because it is not possible to conduct a meaningful practicability analysis on a measure in an area where SURTASS is not deployed and there are no real details to apply to the analysis. Additionally, evaluating potential additional measures in areas that will not be used is not a good use of agency resources. Should SURTASS LFA sonar deploy to new action areas during the time period covered by this proposed rule, NMFS will reconsider the recommendations made in the White Paper in the context of those specific areas and operational considerations in advance of any potential LOA issuance in that area, and publish our evaluation in the associated FR notice.

Proposed Monitoring

Section 101(a)(5)(A) of the MMPA states that in order to issue an ITA for an activity, NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking.'' The MMPA implementing regulations at 50 CFR 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, 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:

- An increase in our understanding of how many marine mammals are likely to be exposed to levels of LFA sonar that we associate with specific adverse effects, such as disruption of behavioral patterns and TTS (Level B harassment), or PTS.
- An increase in our understanding of how individual marine mammals respond (behaviorally or physiologically) to LFA sonar (at specific received levels or other stimuli expected to result in take).
- An increase in our understanding of how anticipated takes of 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).
- An increase in knowledge of the affected species.
- An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.
- A better understanding and record of the manner in which the authorized entity complies with the incidental take authorization.
- An increase in the probability of detecting marine mammals, both within the mitigation zone (thus allowing for more effective implementation of the mitigation) and in general to better achieve the above goals.

In addition to the real-time monitoring associated with mitigation, the Navy is engaging in exploring other monitoring efforts described here:

Marine Mammal Monitoring (M3) Program

The Marine Mammal Monitoring (M3) Program uses the Navy's fixed and mobile passive acoustic monitoring systems to monitor the movements of some large cetaceans (principally baleen whales), including their migration and feeding patterns, by tracking them through their vocalizations.

At present, the M3 Program's data are classified, as are the data reports created by M3 Program analysts, due to the inclusion of sensitive national security information. The Navy (OPNAV N2/N6F24) continues to assess and analyze M3 Program data collected from Navy passive acoustic monitoring systems and is working toward making some portion of that data (after appropriate security reviews) available to scientists with appropriate clearances and ultimately to the public (D0N, 2015). Progress has been achieved on addressing securing concerns and declassifying the results of a specific dataset pertinent to a current area of scientific inquiry for which a peer-reviewed scientific paper is being prepared for submission to a scientific journal.

Due to research indicating that beaked whales and harbor porpoises may be particularly sensitive to a range of underwater sound (Southall et al., 2007; Tyack et al., 2011; Kastelein et al., 2012), in the 2012 rule and LOAs for these activities, NMFS included conditions for understanding of the potential effects of SURTASS LFA sonar on these taxa. The Navy convened an independent Scientific Advisory Group (SAG), whose purpose was to investigate and assess different types of research and monitoring methods that could increase the understanding of the potential effects to beaked whales and harbor porpoises from exposure to SURTASS LFA sonar transmissions. The SAG was composed of six scientists affiliated with two universities, one Federal agency (NMFS), and three private research and consultancy firms. The SAG prepared and submitted a report, entitled, ''Potential Effects of SURTASS LFA Sonar on Beaked Whales and Harbor Porpoises,'' describing the SAG's monitoring and research recommendations. In August 2013, the SAG report was submitted to the Navy, NMFS, and the Executive Oversight Group (EOG) for SURTASS LFA sonar.

The EOG is comprised of representatives from the U.S. Navy (Chair, OPNAV N2/N6F24), Office of the Deputy Assistant Secretary of the Navy for the Environment, Office of Naval Research, Navy Living Marine Research Program, and the NMFS Office of Protected Resources (OPR) (Permits, Conservation, and Education Division). Representatives of the Marine Mammal Commission have also attended EOG meetings as observers. The EOG for SURTASS LFA sonar met twice in 2014 to review and further discuss the research recommendations put forth by the SAG, the feasibility of implementing any of the research efforts, and existing budgetary constraints. In addition to the research and monitoring efforts recommended by the SAG, additional promising suggestions for research/monitoring were recommended for consideration by the EOG. The EOG is considering which research/monitoring efforts are the most efficacious, given existing budgetary constraints, and will provide the Navy with a ranked list of research/monitoring recommendations. The EOG also determined that a study should be conducted to determine the extent of the overlap between potential LFA sonar operations and the distributional range of harbor porpoises; the Navy is in the process of finalizing this study. Following completion of all EOG consideration and evaluation, the Navy will prepare a research action plan for submittal to the NMFS Office of Protected Resources outlining the way forward (DoN, 2015). The Navy is committed to completing its assessment of the validity, need, and recommendations for field and/or laboratory research on the potential effects of SURTASS LFA sonar on beaked whales and harbor porpoises.

Ambient Noise Data Monitoring

Several efforts (federal and academic) are underway to develop a comprehensive ocean noise budget (*i.e.,* an accounting of the relative contributions of various underwater sources to the ocean noise field) for the world's oceans that include both anthropogenic and natural sources of noise. Ocean noise distributions and noise budgets are used in marine mammal masking studies, habitat characterization, and marine animal impact analyses.

The Navy will collect ambient noise data when the SURTASS passive towed horizontal line array is deployed. However, because the collected ambient noise data may also contain sensitive acoustic information, the Navy classifies the data, and thus does not make these data publicly available. The Navy is exploring the feasibility of declassifying and archiving portions of the ambient noise data for incorporation into appropriate ocean noise budget efforts after all related security concerns have been resolved.

Research

The Navy sponsors significant research and monitoring projects for marine living resources to study the potential effects of its activities on marine mammals. N2/N6 provides a representative to the Navy's Living Marine Resources advisory board to provide input to future research projects that may address SURTASS LFA sonar needs. In Fiscal Year 2014, the Navy reported that it spent $29.6 million (M) on marine mammal research and conservation during that year. This ongoing marine mammal research relates to hearing and hearing sensitivity, auditory effects, marine mammal monitoring and detection, noise impacts, behavioral responses, diving physiology and physiological stress, and distribution. The Navy sponsors a significant portion of U.S. research on the effects of human-generated underwater sound on marine mammals and approximately 50 percent of such research conducted worldwide. These research projects may not be specifically related to SURTASS LFA sonar activities; however, they are crucial to the overall knowledge base on marine mammals and the potential effects from underwater anthropogenic noise. The Navy also sponsors research to determine marine mammal abundances and densities for all Navy ranges and other operational areas. The Navy notes that research and evaluation is being carried out on various monitoring and mitigation methods, including passive acoustic monitoring, and the results from this research could be applicable to SURTASS LFA sonar passive acoustic monitoring. The Navy has also sponsored several workshops to evaluate the current state of knowledge and potential for future acoustic monitoring of marine mammals. The workshops bring together underwater acoustic subject matter 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 Navy instrumented ranges.

Adaptive Management

Our understanding about marine mammals and the potential effects of SURTASS LFA sonar on marine mammals is continually evolving. Reflecting this, the proposed rule again includes an adaptive management framework that is supported by the Navy's 2016 SEIS/SOEIS. This allows the agencies to consider new/revised peer-reviewed and published scientific data and information from qualified and recognized sources within academia, industry, and government/non-government organizations to determine (with input regarding practicability) whether SURTASS LFA sonar mitigation, monitoring, or reporting measures should be modified (including additions or deletions) and to make such modification if new scientific data indicate that they would be appropriate. Modifications that are substantial would be made only after a 30-day period of public review and comment. Substantial modifications include a change in mission areas or new information that results in significant changes to mitigation. The framework also allows for updates to marine mammal stock estimates and newly classified species or stocks to be included in annual LOA applications, which, in turn, provides for the use of the best available scientific data for predictive models, including the Acoustic Integration Model © (AIM).

As discussed in the Mitigation section above, NMFS and Navy have refined the adaptive management process for this rule compared to previous rulemakings. New information will still be considered

annually, but only in the context of the area in which SURTASS LFA assets will operate in that year. This approach allows a more focused and productive use of resources by evaluating only areas where SURTASS LFA sonar will be operating.

Proposed 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. There are several different reporting requirements in these proposed regulations:

General Notification of Injured or Dead Marine Mammals

The Navy will systematically observe SURTASS LFA sonar activities for injured or disabled marine mammals. In addition, the Navy will monitor the principal marine mammal stranding networks and other media to correlate analysis of any whale mass strandings that could potentially be associated with SURTASS LFA sonar activities.

Navy personnel will ensure that NMFS is notified immediately or as soon as clearance procedures allow if an injured, stranded, or dead marine mammal is found during or shortly after, and in the vicinity of, any SURTASS LFA sonar activities. 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).

In the event that an injured, stranded, or dead marine mammal is found by the Navy SURTASS LFA sonar vessel crew during transit, or that is not in the vicinity of, or found during or shortly after SURTASS LFA sonar activities, the Navy will report the same information as listed above as soon as operationally feasible and clearance procedures allow.

General Notification of a Ship Strike

Because SURTASS LFA vessels move slowly, it is not likely these vessels would strike a marine mammal. In the event of a ship strike by the SURTASS LFA vessel, at any time or place, the Navy shall do the following:

- Immediately report to NMFS the species identification (if known), location (lat/long) of the animal (or the strike if the animal has disappeared), and whether the animal is alive or dead (or unknown);
- Report to NMFS as soon as operationally feasible the size and length of the animal, an estimate of the injury status (*e.g.,* dead, injured but alive, injured and moving, unknown, etc.), vessel class/type and operational status;
- Report to NMFS the vessel length, speed, and heading as soon as feasible; and
- Provide NMFS a photo or video, if equipment is available.

Quarterly Mitigation Monitoring Report

On a quarterly basis, the Navy would provide NMFS with classified and unclassified reports that include all active-mode missions for each SURTASS LFA sonar vessel. The Navy would provide the quarterly mission reports no later than 45 days following the end of each quarter, beginning on the effective date of the annual LOA. Specifically, the classified reports will include dates/times of exercises, location of vessel, mission operational area, location of the mitigation zone in relation to the LFA sonar array, marine mammal observations, and records of any delays or suspensions of activities. Marine mammal observations would include animal type and/or species, number of animals sighted by species, date and time of observations, type of detection (visual, passive acoustic, HF/M3 sonar), the animal's bearing and range from vessel, behavior, and remarks/narrative (as necessary). The quarterly reports would include the Navy's analysis of take by Level A and/or Level B harassment, estimates of the percentage of marine mammal stocks affected (both for the quarter and cumulatively (to date) for the year covered by the LOA) by SURTASS LFA sonar activities. The Navy's estimates of the percentage of marine mammal stocks and number of individual marine mammals affected by exposure to SURTASS LFA sonar transmissions would be derived using acoustic impact modeling based on operating locations, season of missions, system characteristics, oceanographic environmental conditions, and marine mammal demographics. In the event that no SURTASS LFA missions are completed during a quarter, the Navy will provide NMFS with a report of negative activity for each SURTASS LFA sonar vessel.

Annual Report

The annual report, which is due no later than 60 days after the expiration date of the annual LOAs, would provide NMFS with an unclassified summary of the year's quarterly reports including estimations of total percentages of each marine mammal stock affected by all SURTASS LFA sonar transmissions during the annual period using predictive modeling based on operating locations, dates/times of operations, system characteristics, oceanographic environmental conditions, and animal demographics.

Additionally, the annual report would include: (1) Analysis of the effectiveness of the mitigation measures with recommendations for improvements where applicable; (2) assessment of any long-term effects from SURTASS LFA sonar activities; and (3) any discernible or estimated cumulative impacts from SURTASS LFA sonar activities.

Comprehensive Report

NMFS proposes to require the Navy to provide NMFS and the public with a final comprehensive report analyzing the impacts of SURTASS LFA sonar on marine mammal species and stocks. This report would include an in-depth analysis of all monitoring and Navy-funded research pertinent to SURTASS LFA sonar activities conducted during the 5-year period of these regulations, a scientific assessment of cumulative impacts on marine mammal stocks, and an analysis on the advancement of alternative (passive) technologies as a replacement for LFA sonar. This report would be a key document for NMFS' review and assessment of impacts for any future rulemaking.

The Navy shall respond to NMFS comments and requests for additional information or clarification on the quarterly, annual or comprehensive reports. These reports will be considered final after the Navy has adequately addressed NMFS' comments or provided the requested information, or three months after the submittal of the draft if NMFS does not comment within the three-month time period. NMFS will post the annual and comprehensive reports on the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications*.

Estimated Take of Marine Mammals

This section includes an estimate of the number of incidental takes proposed for authorization pursuant to this rulemaking, which will inform NMFS' consideration of the negligible impact determination.

Harassment is the primary means of take expected to result from these activities. For this military readiness activity, 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 behavior 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). As described previously in the Potential Effects of the Specified Activity on Marine Mammals and their Habitat section, Level B Harassment is expected to occur and is proposed to be authorized as a maximum of 12 percent takes by Level B harassment per stock annually, and the Navy will use the 12 percent limit to guide its mission planning and annual LOA applications. Numbers and percentages of marine mammals and marine mammal stocks will be provided by the Navy in their annual application for LOAs, based on the mission areas for which the Navy anticipated SURTASS LFA sonar activities for that year.

Based on the nature of the activities and the anticipated effectiveness of the mitigation measures, take by Level A Harassment is neither anticipated nor proposed to be authorized. The Navy's acoustic impact analysis for marine mammals represents an evolution that builds upon the analysis, methodology, and impact criteria documented in previous SURTASS LFA sonar NEPA efforts (DoN, 2001; 2007; 2012; 2015), and includes updates of the most current acoustic impact criteria and methodology to assess acoustic impacts (NMFS, 2016). A detailed discussion of the acoustic impact analysis is provided in Appendix B of the Navy's DSEIS/SOEIS, but is summarized here. Using AIM, the Navy modeled 26 representative mission areas in the Pacific, Atlantic, and Indian Oceans, as well as the Mediterranean Sea, representing the acoustic regimes and marine mammal species that may be encountered worldwide during SURTASS LFA sonar activities. To estimate real-world exposure estimates, the Navy used AIM to take the ship movement and speed, as well as LFA sonar transmissions, into account, and to simulate the modeled marine mammal species by creating animats programmed with behavioral values representative of the species, using density estimates for modeled species in each of the representative mission areas.

Density Estimates

To derive density estimates, direct estimates from line-transect surveys that occurred in or near each of the 26 mission areas were utilized first (*e.g.,* Barlow, 2006). However, density estimates were not always available for each species at all sites. When density estimates were not available from a survey in the operational area, density estimates from a region with similar oceanographic characteristics were extrapolated to the operational area. Densities for some mission areas/model sites were also derived from the Navy's Marine Species Density Database (DoN, 2016). Last, density estimates are usually not available for rare marine mammal species or for those that have been newly defined (*e.g.,* Deraniyagala's beaked whale). For such species, a low density estimate of 0.0001 animals per square kilometer (animals/km^2) was used in the risk analysis to reflect the low probability of occurrence in a specific mission area. Further, density estimates are sometimes pooled for species of the same genus if sufficient data are not available to compute a density for individual species or the species are difficult to distinguish at sea. This is often the case for pilot whales and beaked whales, as well as the pygmy and dwarf sperm whales. Density estimates are available to these species groups rather than the individual species. Density information is provided in Tables 3–28 above, and is also available in the Navy's application (Table 3–2, Pages 3–9 through 3–36).

Estimates of Potential Marine Mammal Exposure

The process of estimating the marine mammal takes that may result from the proposed operation of SURTASS LFA sonar begins with the pertinent Navy commands proposing mission areas in which SURTASS LFA sonar may be operated. The Navy performs standard acoustic modeling and impact analyses, taking into account spatial, temporal, and/or operational parameters to determine the potential for PTS, TTS, or behavioral responses for each individual marine mammal. Then, the Navy applies standard mitigation measures (180–dB rms shutdown criteria) to the analysis to calculate take estimates for Level A harassment of marine mammal stocks in the proposed mission area. Based on these estimates, the Navy determines that the proposed missions meet the conditions of the MMPA incidental take regulation and LOAs, as issued (*i.e.,* 12 percent Level B harassment limit per stock), for SURTASS LFA sonar. On a quarterly basis, the duration of actual sonar transmissions is recorded and compared to the predicted missions, as well as summed across the annual LOA period, to ensure that no more than 12% of any stock has been taken by Level B incidental harassment.

The Navy assesses the potential impacts on marine mammals by predicting the sound field that a given marine mammal species could be exposed to over time in a potential mission area. This is a multi-part process involving: (1) The ability to measure or estimate an animal's location in space and time; (2) the ability to measure or estimate the three-dimensional sound field at these times and locations; (3) the integration of these two data sets into the acoustic impact model to estimate the total acoustic exposure for each animal in the modeled population; and (4) the conversion of the resultant cumulative exposures for a modeled population into an estimate of the risk of a disruption of natural behavioral patterns or TTS (*i.e.,* a take estimate for Level B harassment) or of potential injury (*i.e.,* Level A harassment).

The Navy estimated the three-dimensional sound field using its standard parabolic equation (PE) transmission loss model. The results of this model are the primary input to the AIM, which the Navy used to estimate marine mammal sound exposures. AIM integrates simulated movements (including dive patterns) of marine mammals, a schedule of SURTASS LFA sonar transmissions, and the predicted sound field for each transmission to estimate acoustic exposure during a hypothetical SURTASS LFA sonar operation in each proposed mission area seasonally. A description of the PE and AIM models, including AIM input parameters for animal movement, diving behavior, and marine mammal distribution, abundance, and density are all described in detail in the Navy's application and in the Navy's DSEIS/SOEIS (see Appendix B for detailed information on the Marine Mammal Impact Analysis). NMFS has reviewed this information and has accepted the Navy modeling procedure and results.

The acoustic impact analysis for this effort represents an evolution that builds upon the analysis, methodology, and impact criteria documented in previous SURTASS LFA sonar efforts summarized below (DoN, 2001; 2007; and 2012), but incorporates the most current acoustic impact criteria and methodology to assess the potential for auditory impacts and the best available data on behavioral responses of marine mammals to SURTASS LFA sonar. In addition, the Navy continuously updates the analysis with new marine mammal biological data (behavior, distribution, abundance and density) whenever new information becomes available.

Because it is infeasible to model all potential LFA sonar operating areas worldwide, the Navy's application presents 26 modeled sites as examples to provide estimates of potential mission areas based on the current political climate. The Navy analyzed these 26 mission areas using the most up-to-date marine mammal abundance, density, and behavioral information available. These sites represent areas where SURTASS LFA sonar activities could potentially occur based on today's political climate. Table 6–2 of the Navy's application (pages 6–14 through 6–34) provides the Navy's estimates of the percentage of marine mammal stocks potentially affected by SURTASS LFA sonar activities based on reasonable and realistic estimates of the potential effects to marine mammal stocks specific to the potential mission areas. These data are examples of areas where the Navy could request LOAs under the 5-year rule because they are in areas of potential strategic importance and/or areas of possible naval fleet exercises. The percentage of marine mammal stocks that may experience TTS or behavioral changes from LFA sonar exposures was calculated for one season in each of the 26 representative mission areas. The noise exposure scenario was also for a 24-hour period with LFA sonar transmitting 60-second signals every ten minutes for the entire period. Based on historical mission data, it is unlikely that such a scenario would occur, but is a conservative method for estimating potential impacts. As stated previously, this proposed rule calculates percentages of marine mammal species or stocks and does not specify the number of marine mammals that may be taken in the proposed locations because these are determined annually through various inputs such as mission location, mission duration, and season of operation and are included in the application for LOAs due to the fact that the Navy cannot know where they will need to operate each year over the five-year effective period of the proposed rule. For the annual application for an LOA, the Navy identifies the mission areas and proposes to present both the estimated percentage of a stock incidentally harassed as well as the estimated number of animals by species or stock that may be potentially harassed by SURTASS LFA sonar in each of the proposed mission areas for that annual period.

With the implementation of the three-part monitoring programs (visual, passive acoustic, and HF/M3 monitoring), NMFS and the Navy do not expect that marine mammals would be injured by SURTASS LFA sonar because a marine mammal should be detected and active transmissions suspended or delayed. The probability of detection of a marine mammal by the HF/M3 system within the LFA sonar mitigation zone approaches 100 percent based on multiple pings (see the 2001 FOEIS/EIS, Subchapters 2.3.2.2 and 4.2.7.1 for the HF/M3 sonar testing results). Quantitatively, modelling output shows zero takes by Level A harassment for all marine mammal stocks in all representative mission areas with mitigation applied. As noted above, all hearing groups of marine mammals would need to be within 22 ft (7 m) for an entire LFA transmission (60 seconds), and a LF cetacean would need to be within 135 ft (41 m) for an entire LFA transmission to potentially experience PTS. This is unlikely to occur, especially given the mitigation measures in place and their proven effectiveness at detecting marine mammals well outside of this range so that shut down measures would be implemented well before marine mammals would be within these ranges. Again, NMFS notes that over the course of the previous three rulemakings, there have been no reported or known incidents of Level A harassment of any marine mammal. Therefore, NMFS will not authorize any Level A takes for any marine mammal species or stocks over the course of the 5-year regulations. To potentially experience TTS, marine mammals would need to be at farther distances, but still within the approximately 2-km shutdown distance. The distances to the TTS thresholds are less than 50 ft (15 m) for MF and HF cetaceans and otariids, 216 ft (66 m) for phocids, and 1,354 ft (413 m) for LF cetaceans, if an animal were to remain at those distances for an entire LFA sonar signal (60 sec). While it is likely that mitigation measures would also avoid TTS, some small subset of the animals exposed above the Level B harassment threshold may also experience TTS. Any TTS incurred would likely be of a low level and of short duration because we do not expect animals to be exposed for long durations close to the source.

As with the previous rules, the Navy will limit operation of SURTASS LFA sonar to ensure no marine mammal stock will be subject to more than 12 percent of the individuals of any stock taken by Level B harassment annually, during the five-year regulations. This annual per-stock cap applies regardless of the number of LFA vessels operating. The Navy will use the 12 percent cap to guide its mission planning and annual LOA applications.

As discussed, the Navy uses a behavioral response function to estimate the number of behavioral responses that would qualify as Level B behavioral harassment under the MMPA. As the statutory definition is currently applied, a wide range of behavioral reactions may qualify as Level B harassment under the MMPA, including but not limited to avoidance of the sound source, temporary changes in vocalizations or dive patterns, temporary avoidance of an area, or temporary disruption of feeding, migrating, or reproductive behaviors. The estimates calculated using the behavioral response function do not differentiate between the different types of potential behavioral reactions. Nor do the estimates provide information regarding the potential fitness or other biological consequences of the reactions on the affected individuals.

NMFS notes that legislative history suggests that Congress intended that Level B harassment be limited to behavioral disturbances that have ''demographic consequences to reproduction or survivability of the species.'' H.R. Conf. Rep. 108–354 (2003), 108th Cong., 1st Sess., reprinted in 2004 U.S.C.C.A.N. 1407, 1447. However, no methodology currently exists that would allow the Navy to estimate each type of potential behavioral response, predict any long-term consequences for the affected mammals, and then limit its take request to only the most severe responses that could have demographic consequences to reproduction or survivability. Therefore, as described above, the Navy's take estimates capture a wider range of less significant responses. NMFS does not assume that each instance of Level B harassment modeled by the Navy has, or is likely to have, an adverse population-level impact. Rather, NMFS considers the available scientific evidence to determine the likely nature of the modeled behavioral responses and the potential fitness consequences for affected individuals in its negligible impact evaluation.

Negligible Impact Analysis and Determination

NMFS has defined negligible impact 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 (50 CFR 216.103). 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 takes alone is not enough information on which to base an impact determination. In addition to considering the numbers of marine mammals that might be taken through harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.,* intensity and duration), the context of any response (*e.g.,* critical reproductive time or location, migration, etc.), as well as effects on habitat, the status of the affected stocks, and the likely effectiveness of the mitigation. Consistent with the 1989 preamble for NMFS' implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into these analyses via their impacts on the environmental baseline (*e.g.,* as reflected in the regulatory status of the species, population size, and growth rate where known, ongoing sources of human-caused mortality, or ambient noise levels).

To avoid repetition, the discussion of our analyses applies to all the stocks listed in Tables 3 through 28, given that the anticipated effects of this activity on these different marine mammal stocks are expected to be similar, given the operational parameters of the activity. While there are differences in the hearing sensitivity of different groups, these differences have been factored into the analysis for auditory impairment. However, the nature of their behavioral responses is expected to be similar for SURTASS LFA sonar, especially given the context of their short duration open ocean exposures. Additionally, because of the comparatively small percentage of any population expected to be taken, combined with the operational avoidance of areas that are known to be important for specific biologically important reasons and the anticipated low-level effects, there is no need to differentially evaluate species based on varying status.

The Navy has described its specified activities based on best estimates of the number of hours that the Navy will conduct SURTASS LFA activities. The exact number of transmission hours may vary from year to year, but will not exceed the annual total of 225 transmission hours per vessel per year as indicated in Table 1. This has been reduced from previous SURTASS LFA sonar rulemakings, which evaluated and authorized 432 transmission hours per vessel per year. We note that this reduction in transmission hours represents a 41% reduction in sonar hours per ship during this next rulemaking period, which corresponds to less exposure and lessened takes compared to previous rules.

As mentioned previously, NMFS estimates that 104 species of marine mammals could be taken by Level B harassment over the course of the five-year period. For reasons stated previously in this document, no mortalities are anticipated to occur as a result of the Navy's proposed SURTASS LFA sonar activities, and none are proposed to be authorized by NMFS. The Navy has operated SURTASS LFA sonar under NMFS regulations for the last fourteen years without any reports of serious injury or death. The evidence to date, including recent scientific reports and annual monitoring reports, and fourteen years of experience conducting SURTASS LFA activities further supports the conclusion that the potential for injury, and particularly serious injury, to occur is minimal.

Taking the above into account, considering the sections discussed further, and dependent upon the implementation of the proposed mitigation measures, NMFS has preliminarily determined that use of SURTASS LFA sonar during activities will have a negligible impact on the marine mammal species and stocks present in operational areas in the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea, as listed in Tables 3–28 above.

There is no empirical evidence of strandings of marine mammals associated spatially or temporally with the employment of SURTASS LFA sonar. Moreover, the sonar system acoustic characteristics differ between LFA sonar and MF sonars that have been associated with strandings: LFA sonars use frequencies from 100 to 500 Hz, with relatively long signals (pulses) on the order of 60 sec; while MF sonars use frequencies greater than 1,000 Hz, with relatively short signals on the order of 1 sec. NMFS has provided a summary of common features shared by the stranding events in Greece (1996), Bahamas (2000), Madeira (2000), Canary Islands (2002), Hanalei Bay (2004), and Spain (2006) earlier in this document. These included operation of MF sonar, deep water close to land (such as offshore canyons), presence of an acoustic waveguide (surface duct conditions), and periodic sequences of transient pulses (*i.e.,* rapid onset and decay times) generated at depths less than 32.8 ft (10 m) by sound sources moving at speeds of 2.6 m/s (5.1 knots) or more during sonar operations (D'Spain *et al.,* 2006). None of these features relate to SURTASS LFA sonar activities.

Implementing a shutdown zone of approximately 2 km (1.2 mi; 1.1 nmi, which is comprised of the LFA mitigation zone plus a 1-km buffer zone) around the LFA sonar array and vessel will ensure that no marine mammals are exposed to an SEL that would cause PTS or TTS. The proposed mitigation measures would allow the Navy to avoid exposing marine mammals to received levels of SURTASS LFA sonar or HF/M3 sonar sound that would result in injury (Level A harassment) and, as discussed in the Estimated Take of Marine Mammals section, most TTS (Level B harassment) would also be avoided due to mitigation measures, so that the majority of takes would be expected to be in the form of behavioral harassment (lower-level Level B harassment).

As noted above, the context of exposures is important in evaluating the ultimate impacts of the take on the individuals. In the case of SURTASS LFA sonar, the approaching sound source would be moving through the open ocean at low speeds, so concerns of noise exposure are somewhat lessened in this context compared to situations where animals may not be as able to avoid strong or rapidly approaching sound sources. In addition, the duration of the take is important in the case of SURTASS LFA sonar, as the vessel continues to move and any interruption of behavior would be of relatively short duration.

For SURTASS LFA sonar activities, the Navy provided information (Table 6–2 of the Navy's application) estimating percentages of marine mammal stocks that could potentially occur within the proposed 26 worldwide mission areas. Based on our evaluation, take from the specified activities associated with the proposed SURTASS LFA sonar activities will most likely fall within the realm of short-term and temporary, or ephemeral, disruption of behavioral patterns (Level B harassment). NMFS bases this assessment on a number of factors considered together:

(1) Geographic Restrictions—The OBIA and coastal standoff geographic restrictions on SURTASS LFA sonar activities are designed to minimize to the extent practicable the likelihood of disruption of marine mammals in areas where important behavior patterns such as migration, calving, breeding, feeding, or sheltering occur, or in areas with higher densities of marine mammals. As a result, the takes that occur are less likely to result in energetic effects or

disturbances that would reduce the reproductive success or survivorship.

(2) Low Frequency Sonar Scientific Research Program (LFS SRP)—The Navy designed the three-phase LFS SRP study to assess the potential impacts of SURTASS LFA sonar on the behavior of low-frequency hearing specialists, those species believed to be at (potentially) greatest risk due to the presumed overlap in hearing of these species and the frequencies at which SURTASS LFA sonar is operated. This field research addressed three important behavioral contexts for baleen whales: (1) Blue and fin whales feeding in the southern California Bight, (2) gray whales migrating past the central California coast, and (3) humpback whales breeding off Hawaii. Taken together, the results from the three phases of the LFS SRP do not support the hypothesis that most baleen whales exposed to RLs near 140 dB re: 1 μPa would exhibit disturbance or avoidance behaviors. These experiments, which exposed baleen whales to received levels ranging from 120 to about 155 dB re: 1 μPa, confirmed that some portion of the total number of whales exposed to LFA sonar responded behaviorally by changing their vocal activity, moving away from the source vessel, or both; but the responses were short-lived and animals returned to their normal activities within tens of minutes after initial exposure. These short-term behavioral responses do not necessarily constitute significant changes in biologically important behaviors. In addition, these experiments illustrated that the context of an exposure scenario is important for determining the probability, magnitude, and duration of a response. This was shown by the fact that migrating gray whales responded to a sound source in the middle of their migration route but showed no response to the same sound source when it was located offshore, outside the migratory corridor, even when the source level was increased to maintain the same received levels within the migratory corridor. Although this study is nearly two decades old, the collected behavioral response data remain valid and highly relevant, particularly since the information has been bolstered by other, more recent studies as discussed in the Behavioral Response/Disturbance section above. Therefore, take estimates for SURTASS LFA sonar are likely very conservative (though we analyze them here nonetheless), and takes that do occur will be limited to lower Level B harassment takes.

(3) Efficacy of the Navy's Three-Part Mitigation Monitoring Program—Review of Final Comprehensive and Annual Reports from August 2002 through August 2016 (14 years) indicates that the Navy has completed 171 missions and has reported 27 visual sightings, 11 passive acoustic detections, and 206 HF/M3 active sonar detections of marine mammals. The HF/M3 active sonar system has proven to be the most effective of the mitigation monitoring measures to detect possible marine mammals in proximity to the transmitting LFA sonar array, and use of this system substantially increases the probability of detecting marine mammals within the mitigation zone (and beyond), providing a superior monitoring capability. Because the HF/M3 active sonar is able to monitor large and medium marine mammals out to an effective range of 2 to 2.5 km (1.2 to 1.5 mi; 1.1 to 1.3 nmi) from the vessel, it is unlikely that the SURTASS LFA operations would expose marine mammals to an SPL greater than about 174 dB re: 1 μPa at 1 m. Past results of the HF/M3 sonar system tests provide confirmation that the system has a demonstrated probability of single-ping detection of 95 percent or greater for single marine mammals that are 10 m (32.8 ft) in length or larger, and a probability approaching 100 percent for multiple pings of any sized marine mammal. Lastly, as noted above, from the commencement of SURTASS LFA sonar use in 2002 through the present, neither operation of LFA sonar, nor operation of the T–AGOS vessels, has been associated with any mass or individual strandings of marine mammals. In addition, required monitoring reports indicate that there have been no apparent avoidance reactions observed, and no Level A harassment takes due to SURTASS LFA sonar since its use began in 2002 (see *Results from Past Monitoring,* above).

In examining the results of the mitigation monitoring procedures over the previous 14 years of SURTASS LFA activities, NMFS has concluded that the mitigation and monitoring measures for triggering shutdowns of the LFA sonar system have been implemented properly and have successfully minimized the potential adverse effects of SURTASS LFA sonar to marine mammals in the mitigation and buffer zone around the vessel. This conclusion is further supported by documentation that no known mortality or injury to marine mammals has occurred over this period.

For reasons discussed previously, NMFS anticipates that the effect of masking will be limited and the chances of an LFA sonar sound overlapping whale calls at levels that would interfere with their detection and recognition will be extremely low. Also as discussed previously, NMFS does not expect any short- or long-term effects to marine mammal food resources from SURTASS LFA sonar activities. It is unlikely that the activities of the four SURTASS LFA sonar vessels operating approximately 40 days maximum of LFA at any place in the action area over the course of a year would implicate all of the areas for a given species or stock in any year. It is anticipated that ample similar habitat areas are available for species/stocks in the event that portions of preferred areas are ensonified. Implementation of the LFA shutdown zone and additional 1-km buffer would ensure that most marine mammal takes are limited to lower-level Level B harassment. Further, in areas of known biological importance for functions such as feeding, reproduction, etc., effects are mitigated by OBIAs. As described previously, the Navy implements a 12% cap on affected species/stocks of marine mammals and, as indicated from previous monitoring reports, this level has generally never come close to being affected by SURTASS LFA sonar.

In summary (from the discussion above this section), NMFS has made a preliminary finding that the total taking from SURTASS LFA sonar activities will have a negligible impact on the affected species or stocks based on following: (1) The historical demonstrated effectiveness of the Navy's three-part monitoring program in detecting marine mammals and triggering shutdowns, which make it unlikely that an animal will be exposed to sound levels associated with potential injury or TTS; (2) Geographic restrictions requiring the SURTASS LFA sonar sound field not exceed 180 dB within 22 km of any shoreline, including islands, or at a distance of one km from the perimeter of an OBIA; (3) The small number of SURTASS LFA sonar systems that would be operating world-wide (likely not in close proximity to one another); (4) The relatively low duty cycle, short mission periods and offshore nature of the SURTASS LFA sonar; (5) The fact that marine mammals in unspecified migration corridors and open ocean concentrations would be adequately protected from exposure to sound levels that would result in injury, TTS, and more severe levels of behavioral disruption by the three-part monitoring and mitigation protocols; and (6) Monitoring results from the previous fourteen years of SURTASS LFA sonar activities show that take numbers have been well below the 12 percent cap for Level B harassment for each stock, and there have been no Level A takes.

Impacts to marine mammals are anticipated to be predominantly in the form of lower-level Level B behavioral harassment, due to the brief duration and sporadic nature of the SURTASS LFA sonar activities. For example, certain species may have a behavioral reaction (such as increased swim speed, avoidance of the area, etc.) to the sound emitted during the proposed activities.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from the proposed activity will have a negligible impact on all affected marine mammal species or stocks.

Subsistence Harvest of Marine Mammals

Although the Navy will not operate SURTASS LFA sonar in the vast majority of Arctic waters, the Navy may potentially operate LFA sonar in the Gulf of Alaska or southward off the Aleutian Island chain, where subsistence uses of marine mammals under NMFS jurisdiction occur. Seven species of pinnipeds, one species of odontocetes (beluga whale), and one species of mysticetes (bowhead whale) are targeted by subsistence hunting in Alaska. The stocks of beluga whales that experience Alaska Native subsistence hunting are located in the Arctic waters and would not be impacted by SURTASS LFA sonar. The Western Arctic stock of bowhead whales experience subsistence hunting from Alaska, Canadian, and Russian Natives, but would not occur in the operational areas of SURTASS LFA sonar and would not be impacted by sonar transmissions. The distributions of bearded and ringed seals overlap with operational areas of SURTASS LFA sonar in the Sea of Okhotsk, but these are not stocks that experience subsistence hunting. The Alaska Native harvest of harbor seals from twelve stocks identified in Alaska occurs at haul-out sites within the coastal standoff geographic restriction of SURTASS LFA sonar. The remaining four species of pinnipeds (northern fur seal, ribbon seal, spotted seal, and Steller sea lion) experience Native Alaska subsistence hunting and may be exposed to SURTASS LFA sonar transmissions. Pinnipeds are not low-frequency hearing specialists and the potential for impacts from SURTASS LFA sonar are limited to minimal risk for behavioral change.

Should the Navy operate SURTASS LFA sonar in the Gulf of Alaska, sonar operation would adhere to the shutdown in the mitigation and buffer zones, as well as established geographic restrictions, which include the coastal standoff range and OBIAs (which dictates that the sound field produced by the sonar must be below 180 dB re: 1 µPa at 1 m within 22 km (13. mi; 12 nmi) of any coastline or 1 km from the boundary of an OBIA during the time of its biological importance).

Although there are peaks in harvest activity for both species, most subsistence hunting occurs in the winter from January to March when seals have restricted distributions on the ice front. While it is impossible to predict the future timing of the possible employment of SURTASS LFA sonar in the Gulf of Alaska, regardless of the time of year the sonar may be employed in the Gulf of Alaska, there should be no overlap in time or space with subsistence hunts due to the geographic restrictions on the sonar use (*i.e.,* coastal standoff range and OBIA restrictions). These restrictions will prevent the Navy from generating a sound field that reaches the shallow coastal and inshore areas of the Gulf of Alaska where harvest of the two pinniped species occurs. The possible employment of SURTASS LFA sonar in the Gulf of Alaska will not cause abandonment of any harvest/hunting locations, will not displace any subsistence users, nor place physical barriers between marine mammals and the hunters. No mortalities of marine mammals have been associated with the employment of SURTASS LFA sonar and the Navy undertakes a suite of mitigation measures whenever SURTASS LFA sonar is actively transmitting. Therefore, NMFS has preliminarily determined that the possible future employment of SURTASS LFA sonar will not lead to unmitigable adverse impacts on the availability of marine mammal species or stocks for subsistence uses in the Gulf of Alaska or along the Aleutian Island chain.

As part of the public review and comment period for the 2016 DSEIS/SOEIS, letters requesting review were distributed by the Navy to solicit comment from Alaska Native groups on the potential use of SURTASS LFA sonar worldwide. To date, the Navy has not received comments on the DSEIS/SOEIS from Alaska Native groups, nor any requests from Alaskan tribes for government-to-government consultation pursuant to Executive Order 13175. The Navy will continue to keep the Alaskan tribes informed of the timeframes of any future SURTASS LFA sonar exercises planned for the area.

Endangered Species Act

There are 20 marine mammal species under NMFS' jurisdiction that are listed as endangered or threatened under the ESA with confirmed or possible occurrence in potential world-wide mission areas for SURTASS LFA: The blue; fin; sei; humpback (Arabian Sea, Cape Verde Islands/Northwest Africa, Central America, Mexico, and Western North Pacific distinct population segments (DPS)); bowhead; North Atlantic right; North Pacific right; southern right; Western North Pacific DPS of gray; sperm; Cook Inlet DPS of beluga; Main Hawaiian Islands Insular DPS of false killer; and Southern Resident DPS of killer whales, as well as the western DPS of the Steller sea lion; Mediterranean monk seal; Hawaiian monk seal; the Guadalupe fur seal; the Okhotsk ringed seal; the Okhotsk DPS of Pacific bearded seal; and the Southern DPS of spotted seal. In addition, NMFS has proposed to list the Gulf of Mexico Bryde's whale as an endangered species (81 FR 88639, December 8, 2016).

On October 3, 2016, the Navy submitted a Biological Assessment to NMFS to initiate consultation under section 7 of the ESA for the 2017–2022 SURTASS LFA sonar activities and NMFS' authorization for incidental take under section 101(a)(5)(A) of the MMPA. NMFS and Navy will conclude consultation with NMFS's Office of Protected Resources, Interagency Cooperation Division prior to making a determination on the issuance of the final rule and LOAs.

The USFWS is responsible for regulating the take of the several marine mammal species including the southern sea otter, polar bear, walrus, West African manatee, Amazonian manatee, West Indian manatee, and dugong. The Navy has determined that none of these species occur in geographic areas that overlap with SURTASS LFA sonar activities and, therefore, that SURTASS LFA sonar activities will have no effect on the endangered or threatened species or the critical habitat of ESA-listed species under the jurisdiction of the USFWS. Thus, no consultation with the USFWS pursuant to Section 7 of the ESA will occur.

National Environmental Policy Act

Pursuant to the National Environmental Policy Act (NEPA), the Navy has prepared a DSEIS/SOEIS for the specified activity. NMFS is acting as a cooperating agency in the development of the NEPA document.

NMFS plans to adopt the Navy's final SEIS/SOEIS for its action of issuing regulations and LOAs.

The Navy published a Notice of Availability of a DSEIS/SOEIS for employment of SURTASS LFA sonar in the **Federal Register** on August 26, 2016, which was available for public review and comment until October 11, 2016. The public may still view the DSEIS/SOEIS at: *http://www.surtass-lfa-eis.com*.

Prior to issuing the final rule and the first LOA for the proposed activities, NMFS will evaluate the comments received on the DSEIS/SOEIS, comments received as a result of this proposed rulemaking, and the Navy's Final SEIS/SOEIS, and will issue a Record of Decision (ROD).

Classification

This action does not contain any collection of information requirements for purposes of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*).

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), 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 proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The RFA requires a Federal agency 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. 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 and is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. Any requirements imposed by LOAs 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.

List of Subjects in 50 CFR Part 218

Exports, Fish, Imports, Indians, Labeling, Marine mammals, Penalties, Reporting and recordkeeping requirements, Seafood, Transportation.

Dated: April 17, 2017.

Alan D. Risenhoover,

Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is proposed to be amended as follows:

PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

■ 2. Under part 218, revise Subpart X to read as follows:

Subpart X—Taking and Importing of Marine Mammals; Navy Operations of Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) Sonar

Sec.

218.230 Specified activity, level of taking, and species.
218.231 Effective dates.
218.232 Permissible methods of taking.
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Subpart X—Taking and Importing of Marine Mammals; Navy Operations of Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) Sonar

§ 218.230 Specified activity, level of taking, and species.

Regulations in this subpart apply only to the incidental taking of those marine mammal species specified in paragraph (b) of this section by the U.S. Navy, Department of Defense, while engaged in the operation of no more than four SURTASS LFA sonar systems conducting active sonar activities in areas specified in paragraph (a) of this section. The authorized activities, as specified in a Letter of Authorization issued under §§ 216.106 and 218.238 of this chapter, include the transmission of low frequency sounds from the SURTASS LFA sonar system and the transmission of high frequency sounds from the mitigation sonar described in § 218.234 during routine training, testing, and military operations.

(a) The incidental take, by Level B harassment, of marine mammals from the activity identified in this section may be authorized in certain areas of the Pacific, Atlantic, and Indian Oceans and the Mediterranean Sea, as specified in a Letter of Authorization.

(b) The incidental take of marine mammals from the activity identified in this section is limited to the following currently classified species and stocks, and may also cover stocks that represent further formal divisions of these species and stocks of marine mammals, provided that NMFS is able to confirm that the level of taking for those stocks and other factors will be consistent with the findings made for current stocks:

(1) *Mysticetes*–blue whale (*Balaenoptera musculus*), pygmy blue whale (*Balaenoptera musculus brevicauda*), bowhead whale (*Balaena mysticetus*), Bryde's whale (*Balaenoptera edeni*), fin whale (*Balaenoptera physalus*), gray whale (*Eschrichtius robustus*), humpback whale (*Megaptera novaeangliae*), common minke whale (*Balaenoptera acutorostrata*), Antarctic minke whale (*Balaenoptera bonaerensis*), North Atlantic right whale (*Eubalaena glacialis*), North Pacific right whale (*Eubalena japonica*), pygmy right whale (*Capera marginata*), sei whale (*Balaenoptera borealis*), southern right whale (*Eubalaena australis*), Omura's whale (*Balaenoptera omurai*).

(2) *Odontocetes*–Andrew's beaked whale (*Mesoplodon bowdoini*), Arnoux's beaked whale (*Berardius arnuxii*), Atlantic spotted dolphin (*Stenella frontalis*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), Baird's beaked whale (*Berardius bairdii*), Beluga whale (*Dephinapterus leucas*), Blainville's beaked whale (*Mesoplodon densirostris*), Chilean dolphin (*Cephalorhynchus eutropia*), Clymene dolphin (*Stenella clymene*), Commerson's dolphin (*Cephalorhynchus commersonii*), common bottlenose dolphin (*Tursiops truncatus*), Cuvier's beaked whale (*Ziphius cavirostris*), Dall's porpoise (*Phocoenoides dalli*), Deraniyagala's beaked whale (*Mesoplodon hotaula*), Dusky dolphin (*Lagenorhynchus obscurus*), dwarf sperm and pygmy sperm whales *(Kogia simus* and *K. breviceps),* false killer whale (*Pseudorca crassidens*), Fraser's dolphin (*Lagenodelphis hosei*), Gervais' beaked whale (*Mesoplodon europaeus*), ginkgo-toothed beaked whale (*Mesoplodon ginkgodens*), Gray's beaked whale (*Mesoplodon grayi*), Heaviside's dolphin (*Cephalorhynchus heavisidii*), Hector's

beaked whale (*Mesoplodon hectori*), Hector's dolphin (*Cephalorhynchus hectori*); Hourglass dolphin (*Lagenorhynchus cruciger*), Hubbs' beaked whale (*Mesoplodon carhubbsi*), harbor porpoise (*Phocoena phocoena*); Indo-pacific common dolphin (*Delphinus delphis tropicalis*), Indo-Pacific bottlenose dolphin (*Tursiops aduncus*), killer whale (*Orca orcinus*), long-beaked common dolphin (*Delphinus capensis*), long-finned pilot whale (*Globicephala melas*), Longman's beaked whale (*Indopacetus pacificus*), melon-headed whale (*Peponocephala electra*), northern bottlenose whale (*Hyperodon ampullatus*), northern right whale dolphin (*Lissodelphis borealis*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), pantropical spotted dolphin (*Stenella attenuata*), Peale's dolphin (*Lagenorhynchus australis*), Perrin's beaked whale (*Mesoplodon perrini*), pygmy beaked whale (*Mesoplodon peruvianus*), pygmy killer whale (*Feresa attenuata*), Risso's dolphin (*Grampus griseus*), rough-toothed dolphin (*Steno bredanensis*), Shepherd's beaked whale (*Tasmacetus sheperdii*), short-beaked common dolphin (*Delphinus delphis*), short-finned pilot whale (*Globicephala macrorhynchus*), southern bottlenose whale (*Hyperodon planifrons*), southern right whale dolphin (*Lissodelphis peronii*), Sowerby's beaked whale (*Mesoplodon bidens*), spade-toothed beaked whale (*Mesoplodon traversii*), spectacled porpoise (Phocoena dioptrica), sperm whale (*Physeter macrocephalus*), spinner dolphin (Stenella longirostris), Stejneger's beaked whale (*Mesoplodon stejnegeri*), strap-toothed beaked whale (*Mesoplodon layardii*), striped dolphin (*Stenella coeruleoalba*), True's beaked whale (*Mesoplodon mirus*), white-beaked dolphin (*Lagenorhynchus albirostris*),

(3) *Pinnipeds*–Australian fur seal (*Arctocephalus pusillus doriferus*), Australian sea lion (*Neophoca cinerea*), California sea lion (Zalophus californianus), Eastern (Loughlin's) Steller sea lion (*Eumetopias jubatus monteriensis*), Galapagos fur seal (*Arctocephalus galapagoensis*), Galapagos sea lion (*Zalophus wollebaeki*), Guadalupe fur seal (*Arctocephalus townsendi*), Juan Fernandez fur seal (*Arctocephalus philippi philippi*), New Zealand fur seal (*Arctocephalus forsteri*), New Zealand sea lion (*Phocarctos hookeri*), northern fur seal (*Callorhinus ursinus*), South African or Cape fur seals (*Arctocephalus pusillus pusillus*), South American fur seal (*Arctocephalus australis*), South American sea lion (*Otaria flavescens*), subantarctic fur seal (*Arctocephalus tropicalis*), Western Steller sea lion (*Eumetopiaas jubatus jubatus*), Atlantic gray seal (*Halichoerus grypus atlantica*), Atlantic ringed seal (*Pusa hispida hispida*), Atlantic and Pacific harbor seal (*Phoca vitulina*), harp seal (*Pagophilus groenlandicus*), Hawaiian monk seal (*Monachus schauinslandi*), hooded seal (*Cystophora cristata*), Mediterranean monk seal (*Monachus monachus*), northern elephant seal (*Mirounga angustirostris*), Okhotsk ringed seal (*Pusa hispida ochotensis*), Pacific bearded seal (*Erignathus barbatus nauticus*), ribbon seal (*Phoca fasciata*), southern elephant seal (*Mirounga leonina*), spotted seal (*Phoca largha*).

§ 218.231 Effective dates.

Regulations are effective August 15, 2017, through August 14,

§ 218.232 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §§ 216.106 and 218.238 of this chapter, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals by Level B harassment within the areas described in (a), provided that the activity is in compliance with all terms, conditions, and requirements of this subpart and the appropriate Letter of Authorization.

(b) The incidental take of marine mammals under the activities identified in § 218.230 is limited to the species listed in § 218.230(b) by the method of take indicated in paragraph (b)(2) of this section.

(1) The Navy must maintain a running calculation/estimation of takes of each species or stock over the effective period of this subpart.

(2) Takes by Level B Harassment will not exceed 12 percent of any marine mammal stock listed in § 218.230(b)(1) through (3) annually over the course of the five-year regulations. This annual per-stock cap of 12 percent applies regardless of the number of LFA vessels operating.

§ 218.233 Prohibitions.

No person in connection with the activities described in § 218.230 may:

(a) Take any marine mammal not specified in § 218.230(b);

(b) Take any marine mammal specified in § 218.230 other than by incidental take as specified in § 218.232(b)(2);

(c) Take any marine mammal specified in § 218.230 if NMFS makes a determination that such taking will result, or is resulting, in more than a negligible impact on the species or stocks of such marine mammal; or

(d)(d) Violate, or fail to comply with, any of the terms, conditions, or requirements of this subpart or any Letter of Authorization issued under § 216.106 and 218.238 of this chapter.

§ 218.234 Mitigation.

When conducting activities identified in § 218.230, the mitigation measures described in this section and in any Letter of Authorization issued under § 216.106 and § 218.238 must be implemented.

(a) *Personnel Training*—Lookouts: (1) The Navy shall train the lookouts in the most effective means to ensure quick and effective communication within the command structure in order to facilitate implementation of protective measures if they spot marine mammals.

(2) The Navy will hire one or more marine mammal biologist qualified in conducting at-sea marine mammal visual monitoring from surface vessels to train and qualify designated ship personnel to conduct at-sea visual monitoring. This training may be accomplished either in-person, or via video training.

(b) *General Operating Procedures:* (1) Prior to SURTASS LFA sonar activities, the Navy will promulgate executive guidance for the administration, execution, and compliance with the environmental regulations under this subpart and Letters of Authorization.

(2) The Holder of a Letter of Authorization will not transmit the SURTASS LFA sonar signal at a frequency greater than 500 Hz.

(c) *LFA Sonar Mitigation Zone and 1-km Buffer Zone; Suspension and Delay:* (1) Prior to commencing and during SURTASS LFA sonar transmissions, the Holder of a Letter of Authorization will determine the propagation of LFA sonar signals in the ocean and the distance from the SURTASS LFA sonar source to the 180-decibel (dB) re: 1 µPa isopleth.

(2) The Holder of a Letter of Authorization will establish an 180-dB LFA mitigation zone around the surveillance vessel that is equal in size to the 180-dB re: 1 µPa isopleth (*i.e.,* the volume subjected to sound pressure levels of 180 dB or greater) as well as a one-kilometer (1-km) buffer zone around the LFA mitigation zone.

(3) If a marine mammal is detected, through monitoring required under § 218.235, within or about to enter the LFA mitigation zone plus the 1-km buffer zone, the Holder of the Authorization will immediately delay or suspend SURTASS LFA sonar transmissions.

(d) *Resumption of SURTASS LFA sonar transmissions:* (1) The Holder of a Letter of Authorization will not resume SURTASS LFA sonar transmissions earlier than 15 minutes after:

(i) All marine mammals have left the area of the LFA mitigation and buffer zones; and

(ii) There is no further detection of any marine mammal within the LFA mitigation and buffer zones as determined by the visual, passive, and high frequency monitoring described in § 218.235.

(2) [Reserved]

(e) *Ramp-up Procedures for the high-frequency marine mammal monitoring (HF/M3) sonar required under § 218.235:* (1) The Holder of a Letter of Authorization will ramp up the HF/M3 sonar power level beginning at a maximum source sound pressure level of 180 dB: re 1 μPa at 1 meter in 10-dB increments to operating levels over a period of no less than five minutes:

(i) At least 30 minutes prior to any SURTASS LFA sonar transmissions;

(ii) Prior to any SURTASS LFA sonar calibrations or testing that are not part of regular SURTASS LFA sonar transmissions described in § 218.230; and

(iii) Anytime after the HF/M3 source has been powered down for more than two minutes.

(2) The Holder of a Letter of Authorization will not increase the HF/M3 sound pressure level once a marine mammal is detected; ramp-up may resume once marine mammals are no longer detected.

(f) *Geographic Restrictions on the SURTASS LFA Sonar Sound Field:* (1) The Holder of a Letter of Authorization will not operate the SURTASS LFA sonar such that:

(i) The SURTASS LFA sonar sound field exceeds 180 dB re: 1 μPa (rms) at a distance less than 12 nautical miles (nmi) (22 kilometers (km)) from any land, including offshore islands;

(ii) The SURTASS LFA sonar sound field exceeds 180 dB re: 1 μPa (rms) at a distance less than 1 km (0.5 nm) seaward of the outer perimeter of any Offshore Biologically Important Area (OBIA) designated in § 218.234(f)(2), or identified through the Adaptive Management process specified in § 218.241, during the period specified. The boundaries and periods of such OBIAs will be kept on file in NMFS' Office of Protected Resources and on its Web site at *http://www/nmfs.noaa.gov/pr/permits/incidental/military.htm*.

(2) Offshore Biologically Important Areas (OBIAs) for marine mammals (with specified periods) for SURTASS LFA sonar activities include the following:

Name of area	Location of area	Months of importance
Georges Bank	Northwest Atlantic Ocean	Year-round.
Roseway Basin Right Whale Conservation Area	Northwest Atlantic Ocean	June through December, annually.
Great South Channel, U.S. Gulf of Maine, and Stellwagen Bank National Marine Sanctuary (NMS).	Northwest Atlantic Ocean/Gulf of Maine	January 1 to November 14, annually.
Southeastern U.S. Right Whale Habitat	Northwest Atlantic Ocean	November 15 to January 15, annually.
Gulf of Alaska	Gulf of Alaska	March through August, annually.
Navidad Bank	Caribbean Sea/Northwest Atlantic Ocean	December through April, annually.
Coastal waters of Gabon, Congo and Equatorial Guinea.	Southeastern Atlantic Ocean	June through October, annually.
Patagonian Shelf Break	Southwestern Atlantic Ocean	Year-round.
Southern Right Whale Seasonal Habitat	Southwestern Atlantic Ocean	May through December, annually.
Central California	Northeastern Pacific Ocean	June through November, annually.
Antarctic Convergence Zone	Southern Ocean	October through March, annually.
Piltun and Chayvo offshore feeding grounds	Sea of Okhotsk	June through November, annually.
Coastal waters off Madagascar	Western Indian Ocean	July through September, annually for humpback whale breeding and November through December, annually for migrating blue whales.
Madagascar Plateau, Madagascar Ridge, and Walters Shoal.	Western Indian Ocean	November through December, annually.
Ligurian-Corsican-Provencal Basin and Western Pelagos Sanctuary.	Northern Mediterranean Sea	July to August, annually.
Penguin Bank, Hawaiian Islands Humpback Whale NMS.	North-Central Pacific Ocean	November through April, annually.
Costa Rica Dome	Eastern Tropical Pacific Ocean	Year-round.
Great Barrier Reef Between	Coral Sea/Southwestern Pacific Ocean	May through September, annually.
Bonney Upwelling	Southern Ocean	December through May, annually.
Northern Bay of Bengal and Head of Swatch-of-No-Ground (SoNG).	Bay of Bengal/Northern Indian Ocean	Year-round.
Olympic Coast NMS and Prairie, Barkley Canyon, and Nitnat Canyon.	Northeastern Pacific Ocean	Olympic NMS: December, January, March, and May annually. Prairie, Barkley Canyon, and Nitnat Canyon: June through September annually.
Abrolhos Bank	Southwest Atlantic Ocean	August through November, annually.
Grand Manan North Atlantic Right Whale Critical Habitat.	Bay of Fundy, Canada	June through December, annually.
Eastern Gulf of Mexico	Eastern Gulf of Mexico	Year-round.
Southern Chile Coastal Waters	Gulf of Corcovado, Southeast Pacific Ocean; Southwestern Chile.	February to April, annually.
Offshore Sri Lanka	North-Central Indian Ocean	December through April, annually.
Camden Sound/Kimberly Region	Southeast Indian Ocean; northwestern Australia.	June through September, annually.
Perth Canyon	Southeast Indian Ocean; southwestern Australia.	January through May, annually.

(g) *Operational Exception for the SURTASS LFA Sonar Sound Field.* During military operations SURTASS LFA sonar transmissions may exceed 180 dB re: 1 μPa (rms) within the boundaries of a SURTASS LFA sonar OBIA when:

(1) Operationally necessary to continue tracking an existing underwater contact; or

(2) Operationally necessary to detect a new underwater contact within the OBIA. This exception does not apply to routine training and testing with the SURTASS LFA sonar systems.

§ 218.235 Requirements for monitoring.

(a) The Holder of a Letter of Authorization issued pursuant to §§ 216.106 and 218.238 must:

(1) Conduct visual monitoring from the ship's bridge during all daylight hours (30 minutes before sunrise until 30 minutes after sunset). During activities that employ SURTASS LFA sonar in the active mode, the SURTASS vessels shall have lookouts to maintain a topside watch with standard binoculars (7x) and with the naked eye.

(2) Use low frequency passive SURTASS sonar to listen for vocalizing marine mammals; and

(3) Use the HF/M3 sonar to locate and track marine mammals in relation to the SURTASS LFA sonar vessel and the sound field produced by the SURTASS LFA sonar source array, subject to the ramp-up requirements in § 216.234(e) of this chapter.

(b) Monitoring under paragraph (a) of this section must:

(1) Commence at least 30 minutes before the first SURTASS LFA sonar transmission;

(2) Continue between transmission pings; and

(3) Continue either for at least 15 minutes after completion of the SURTASS LFA sonar transmission exercise, or, if marine mammals are exhibiting unusual changes in behavioral patterns, for a period of time until behavior patterns return to normal or conditions prevent continued observations.

(c) Holders of Letters of Authorization for activities described in § 218.230 are required to cooperate with the National Marine Fisheries Service and any other federal agency for monitoring the impacts of the activity on marine mammals.

(d) The Navy must designate qualified on-site individuals to conduct the mitigation, monitoring and reporting activities specified in the Letter of Authorization.

(e) Holders of Letters of Authorization will continue to assess data from the Marine Mammal Monitoring Program and work toward making some portion of that data, after appropriate security reviews, available to scientists with appropriate clearances. Any portions of the analyses conducted by these scientists based on these data that are determined to be unclassified after appropriate security reviews will be made publically available.

(f) Holders of Letters of Authorization will collect ambient noise data and will explore the feasibility of declassifying and archiving the ambient noise data for incorporation into appropriate ocean noise budget efforts.

(g) Holders of Letters of Authorization must conduct all monitoring required under the Letter of Authorization.

§ 218.236 Requirements for reporting.

(a) The Holder of a Letter of Authorization must submit classified and unclassified quarterly mission reports to the Director, Office of Protected Resources, NMFS, no later than 45 days after the end of each quarter beginning on the date of effectiveness of a Letter of Authorization or as specified in the appropriate Letter of Authorization. Each quarterly mission report will include a summary of all active-mode missions completed during that quarter. At a minimum, each classified mission report must contain the following information: (1) Dates, times, and location of each vessel during each mission;

(2) Information on sonar transmissions during each mission;

(3) Results of the marine mammal monitoring program specified in the Letter of Authorization; and

(4) Estimates of the percentages of marine mammal species and stocks affected (both for the quarter and cumulatively for the year) covered by the Letter of Authorization.

(b) The Holder of a Letter of Authorization must submit an unclassified annual report to the Director, Office of Protected Resources, NMFS, no later than 60 days after the expiration of a Letter of Authorization. The reports must contain all the information required by the Letter of Authorization.

(c) The fifth annual report shall be prepared as a final comprehensive report, which will include information for the final year as well as the prior four years of activities under the rule. This final comprehensive report must also contain an unclassified analysis of new passive sonar technologies and an assessment of whether such a system is feasible as an alternative to SURTASS LFA sonar, and shall be submitted to the Director, Office of Protected Resources, NMFS as described in paragraph (b) of this section.

(d) The Navy will continue to assess the data collected by its undersea arrays and work toward making some portion of that data, after appropriate security reviews, available to scientists with appropriate clearances. Any portions of the analyses conducted by these scientists based on these data that are determined to be unclassified after appropriate security reviews will be made publically available. The Navy will provide a status update to NMFS when it submits an annual application for the Letters of Authorization.

§ 218.237 Applications for letters of authorization.

(a) To incidentally take marine mammals pursuant to this subpart, the U.S. Navy authority conducting the activity identified in § 218.230 must apply for and obtain a Letter of Authorization in accordance with § 216.106 of this chapter.

(b) The application for a Letter of Authorization must be submitted to the Director, Office of Protected Resources, NMFS, at least 60 days before the date that either the vessel is scheduled to begin conducting SURTASS LFA sonar activities or the previous Letter of Authorization is scheduled to expire. If the Navy will change mission areas, or if there are other substantial modifications to the described activity, mitigation, or monitoring undertaken during the upcoming period, the Navy will submit its application for a Letter of Authorization at least 90 days before the date that either the vessel is scheduled to begin conducting SURTASS LFA sonar activities or the previous Letter of Authorization is scheduled to expire.

(c) All applications for a Letter of Authorization must include the following information:

(1) The area(s) where the vessel's activity will occur;

(2) The species and/or stock(s) of marine mammals likely to be found within each area;

(3) The type of incidental taking authorization requested (*i.e.,* take by Level B harassment);

(4) The estimated percentage of marine mammal species/stocks potentially affected in each area for the period of effectiveness of the Letter of Authorization; and

(5) The means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and the level of taking or impacts on marine mammal populations.

(d) The National Marine Fisheries Service will review an application for a Letter of Authorization in accordance with § 216.104(b) of this chapter and, if adequate and complete, issue a Letter of Authorization.

§ 218.238 Letters of authorization.

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed one year, but may be renewed annually subject to renewal conditions in § 218.239.

(b) Each Letter of Authorization will set forth:

(1) Permissible methods of incidental taking;

(2) Authorized geographic areas for incidental takings;

(3) Means of effecting the least practicable adverse impact on the species of marine mammals authorized for taking, their habitat, and the availability of the species for subsistence uses; and

(4) Requirements for monitoring and reporting incidental takes.

(c) Issuance of a letter of authorization will be based on a determination that the level of taking will be consistent with the findings made for the total taking allowable under this subpart.

(d) Notice of issuance or denial of an application for a Letter of Authorization will be published in the **Federal Register** within 30 days of a determination.

§ 218.239 Renewal of letters of authorization.

(a) A Letter of Authorization issued for the activity identified in § 218.230 may be renewed upon:

(1) Notification to NMFS that the activity described in the application submitted under § 218.237 will be undertaken and that there will not be a substantial modification to the described activity, mitigation or monitoring undertaken during the upcoming period;

(2) Notification to NMFS of the information identified in § 218.237(c);

(3) Timely receipt of the monitoring reports required under § 218.236, which have been reviewed by NMFS and determined to be acceptable;

(4) A determination by NMFS that the mitigation, monitoring and reporting measures required under §§ 218.234, 218.235, and 218.236 and the previous Letter of Authorization were undertaken and will be undertaken during the upcoming period of validity of a renewed Letter of Authorization; and

(5) A determination by NMFS that the level of taking will be consistent with the findings made for the total taking allowable under this subpart, including for newly identified stocks that represent smaller divisions of species or stocks listed in § 218.230(b).

(b) If a request for a renewal of a Letter of Authorization indicates that a substantial modification to the described work, mitigation, or monitoring will occur, or if NMFS proposes a substantial modification to the Letter of Authorization, NMFS will provide a period of 30 days for public review and comment on the proposed modification. Modifying OBIAs is not considered a substantial modification to the 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** within 30 days of a determination.

§ 218.240 Modifications to letters of authorization.

(a) Except as provided in paragraph (b) of this section, no substantial modification (including withdrawal or suspension) to a Letter of Authorization subject to the provisions of this subpart shall be made by NMFS until after notification and an opportunity for public comment has been provided.

(b) If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.230(b)(1), (2), or (3), NMFS may modify a Letter of Authorization without prior notice and opportunity for public comment. Notification will be published in the **Federal Register** within 30 days of the action.

§ 218.241 Adaptive management.

NMFS may modify or augment the existing mitigation or monitoring measures (after consulting with the Navy regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of mitigation and monitoring. NMFS will provide a period of 30 days for public review and comment if such modifications are substantial. Amending the areas for upcoming SURTASS LFA sonar activities or OBIA boundaries are not considered substantial modifications to the Letter of Authorization. Below are some of the possible sources of new data that could contribute to the decision to modify the mitigation or monitoring measures:

(a) Results from the Navy's monitoring from the previous year's operation of SURTASS LFA sonar).

(b) Compiled results of Navy-funded research and development studies.

(c) Results from specific stranding investigations.

(d) Results from general marine mammal and sound research funded by the Navy or other sponsors.

(e) Any information that reveals marine mammals may have been taken in a manner, extent or number not anticipated by this subpart or subsequent Letters of Authorization.

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Part III

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 218

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training Activities in the Gulf of Alaska Temporary Maritime Activities Area; Final Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 218

[Docket No. 141125997–7365–02]

RIN 0648–BE67

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Training Activities in the Gulf of Alaska Temporary Maritime Activities Area

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

ACTION: Final rule.

SUMMARY: Upon application from the U.S. Navy (Navy), we (NMFS) are issuing regulations under the Marine Mammal Protection Act (MMPA) to govern the unintentional taking of marine mammals incidental to the training activities conducted in the Gulf of Alaska (GOA) Temporary Maritime Activities Area (TMAA) Study Area (hereafter referred to the Study Area) from May 2017 through May 2022. These regulations allow us to issue a Letter of Authorization (LOA) for the incidental take of marine mammals during the Navy's specified activities and timeframes, set forth the permissible methods of taking, set forth other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, and set forth requirements pertaining to the monitoring and reporting of the incidental take.

DATES: Effective April 26, 2017, through April 26, 2022.

ADDRESSES: To obtain an electronic copy of the Navy's LOA application or other referenced documents, visit the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.* Documents cited in this notice may also be viewed, by appointment, during regular business hours, at 1315 East-West Highway, SSMC III, Silver Spring, MD 20912.

FOR FURTHER INFORMATION CONTACT: Jolie Harrison, Office of Protected Resources, NMFS, (301) 427–8477.

SUPPLEMENTARY INFORMATION:

Availability

A copy of the Navy's LOA application may be obtained by visiting the internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.* The Navy's Final Supplemental Environmental Impact Statement/Overseas Environmental Impact Statement (FSEIS/OEIS) for the GOA TMAA Study Area, which also contains a list of the references used in this document, may be viewed at *http://www.goaeis.com.* Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address (see **ADDRESSES**).

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings 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 (where relevant), and if the Secretary sets forth permissible methods of taking and other means of effecting the least practicable impact on the species or stock and its habitat. 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 indicated above and amended the definition of ''harassment'' as applies to a ''military readiness activity'' to read as follows (section 3(18)(B) of the MMPA, 16 U.S.C. 1362(18)(B)): ''(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 July 28, 2014, NMFS received an application from the Navy requesting an LOA for the take of 19 species of marine mammals, representing 27 stocks, incidental to Navy training activities to be conducted in the Study Area over 5 years. On October 14, 2014, the Navy submitted a revised LOA application to reflect minor changes in the number and types of training activities. To address minor inconsistencies with the draft SEIS/OEIS (DSEIS/OEIS), the Navy submitted a final revision to the LOA application (hereafter referred to as the LOA application) on January 21, 2015. In November 2016, the Navy requested that the final rule and LOA be issued for the training activities addressed by Alternative 1 of the FSEIS/OEIS. The Navy's LOA application was based on the training activities addressed by Alternative 2 of the DSEIS/OEIS; therefore, our proposed rule (81 FR 9950; February 26, 2016) analyzed the level of activities as described by Alternative 2. Pursuant to the Navy's November 2016 request, the final rule now reflects the training activities addressed by Alternative 1 of the FSEIS/OEIS, which include a subset of the activities analyzed in the proposed rule. The change from Alternative 2 to Alternative 1 results in a significant reduction in proposed training activities (see ''Training'' and ''Summary of Impulsive and Non-Impulsive Sources''), lessening the number of the Carrier Strike Group Events from 2 to 1 per year, and the number of SINKEXs from 2 to 0 per year, which means that several types of explosives will no longer be used and there will be no live MISSILEX. This significantly decreases the number of anticipated and authorized takes for this activity (see ''Take Request'') compared to what was presented in the proposed rule.

The Navy is requesting a five-year LOA for training activities to be conducted from May 2017 through May 2022. The Study Area is a polygon roughly the shape of a 300 nm by 150 nm rectangle oriented northwest to southeast in the long direction, located south of Prince William Sound and east of Kodiak Island, Alaska (see Figure 1–1 of the LOA application for a map of the Study Area). The activities conducted within the Study Area are classified as military readiness activities. The Navy states that these activities may expose some of the marine mammals present within the Study Area to sound from underwater acoustic sources and explosives. The Navy's request for authorization is for the incidental take of individuals of 19

species of marine mammals, representing 27 stocks, by Level B harassment and one species of marine mammal (Dall's porpoise) by Level A harassment. The Navy is not requesting mortality takes for any species.

The LOA application, proposed rule (81 FR 9950; February 26, 2016), and GOA FSEIS/OEIS contain acoustic thresholds that, in some instances, represent changes from what NMFS has used to evaluate the Navy's activities for previous authorizations. These thresholds, which the Navy developed in coordination with NMFS, are based on the evaluation and inclusion of new information from recent scientific studies; a detailed explanation of how they were derived is provided in the GOA FSEIS/OEIS Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis Technical Report (available at *http://www.goaeis.com*).

On August 4, 2016, NMFS released its Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (new Guidance). This new Guidance established new thresholds and associated weighting functions for predicting auditory injury, or permanent threshold shift (PTS), which equates to Level A harassment under the MMPA, and temporary threshold shift (TTS), which is considered Level B harassment under the MMPA. In the August 4, 2016, **Federal Register** notice announcing the new Guidance (81 FR 51694), NMFS explained the approach it would take during a transition period, during which we will balance the need to consider this new best available science with the fact that some applicants have already committed time and resources to the development of analyses based on our previous thresholds and have constraints that preclude the recalculation of take estimates, as well as consideration of where the action is in the agency's decision-making ''pipeline.'' In that notice, we included a non-exhaustive list of factors that would inform the most appropriate approach for considering the new Guidance, including: How far in the process the application or prospective application has progressed; when the activity is scheduled to begin or other timing constraints; the complexity of the analyses and the cost and practicality of redoing them; the temporal and spatial scope of anticipated effects; and the relative degree to which the new Guidance is expected to affect the results of the acoustic impact analyses.

In developing the new Guidance, NMFS compiled, interpreted, and synthesized scientific information currently available on the effects of anthropogenic sound on marine mammals, including a recent Technical Report by Dr. James Finneran (U.S. Navy-SPAWAR Systems Center Pacific) that proposed new weighting functions and thresholds for predicting the onset of both PTS and temporary threshold shifts (TTS) in marine mammals (Finneran, 2016). The methodologies presented within this paper (and in NMFS' new Guidance) build upon the methodologies used to develop the criteria applied within the proposed rule and Navy's GOA FSEIS/OEIS (Finneran and Jenkins, 2012), and incorporate relevant auditory research made available since 2012 (*e.g.,* Kastelein *et al.,* 2012a; Kastelein *et al.,* 2012b; Finneran and Schlundt, 2013; Kastelein *et al.,* 2013a; Kastelein *et al.,* 2013b; Popov *et al.,* 2013; Kastelein *et al.,* 2014a; Kastelein *et al.,* 2014b; Popov *et al.,* 2014; Finneran *et al.,* 2015; Kastelein *et al.,* 2015a; Kastelein *et al.,* 2015b; Popov *et al.,* 2015). In light of limited data at the time, Finneran and Jenkins (2012) presented a conservative approach to development of auditory weighting functions. In 2016, with the benefit of newly-available data, Finneran was able to synthesize a wide range of auditory data, including newly-available studies, to predict refined auditory weighting functions and corresponding TTS and PTS thresholds across the complete hearing ranges of functional hearing groups. At the time of the release of the proposed rule and GOA FSEIS/OEIS, NMFS' new Guidance had not been issued. Further, the new criteria were not available for the Navy's acoustic effects modeling used to calculate distances to harassment thresholds and resulting take estimates. Therefore, the Navy did not directly use the new auditory weighting functions and PTS/TTS criteria in its GOA FSEIS/OEIS.

In addition to the fact that it was possible to address the new Guidance adequately without remodeling it would have been impractical for the Navy to entirely re-model its proposed action based on the new Guidance. The Navy committed substantial time and resources to the development of acoustic analyses based on previous acoustic thresholds. Data and information (*e.g.,* on marine species density) gathering for this second GOA rule (Phase II, 2017–2022) modeling began in November 2011 and subsequent modeling occurred over a 20-month period from October 2012 to June 2014. The contract costs for modeling GOA events were significant, as was Navy Pacific Fleet staff labor. The underlying science contained within Finneran (2016) (upon which NMFS' new Guidance is based) has been addressed qualitatively within the applicable sections of the GOA FSEIS/OEIS and this final rulemaking. Further, although the writers of the base code for the model used for Phase II were not available to recode the model with the updated impulsive criteria in terms of weighting functions, the Navy was able to use the model to reprocess anticipated explosive ranges to effects for PTS based on the criteria presented in the new Guidance to assess if the new criteria could result in any additional species-specific injury exposures. In short, the Navy quantitatively reanalyzed PTS ranges and exposures from explosive sources using the new Guidance, from which TTS and behavioral exposures could be estimated, but the sonar exposures were not remodeled because a qualitative assessment of the new Guidance and the activities showed that it was not necessary in order to support the analysis, in addition to being impractical.

For the sonar exposure estimates, if the new Guidance was quantitatively applied to the GOA TMAA effects analysis and new modeling conducted, predicted numbers of PTS and/or TTS would change to some small degree (even if only by fractions of a take). However, because the new Guidance relies on much of the same data as the auditory criteria presented in the proposed rule and the Navy's GOA FSEIS/OEIS, these changes would not be substantial (as described in more detail below), and in most cases would result in a reduction in the predicted impacts.

Onset PTS thresholds for non-impulsive sound (sonar) are largely lower (*i.e.,* are more conservative) in Finneran and Jenkins 2012 (used in GOA FSEIS/OEIS) compared to the new Guidance, while updated auditory weighting functions for most marine mammal hearing groups have changed minimally in the new Guidance. This means that the predicted ranges to PTS and TTS in the GOA FSEIS/OEIS and this final rule for non-impulsive sources would change only minimally (and for the most part are larger than what would result) if NMFS' new Guidance were quantitatively applied and new modeling conducted (*i.e.,* estimated numbers of takes resulting in PTS and TTS from sonar are, for the most part, larger in this final rule than would be expected if the Navy's activities were re-modeled using the new Guidance). Specifically, PTS thresholds for non-impulsive sources for all taxa went up

(*i.e.,* are less conservative), except for Otariids, for which they went down by one dB. Given that the PTS range to effects for Otariids was previously 10m, a 1 dB change in the PTS threshold would not change the PTS range to effects by more than a couple of meters for any acoustic source. For TTS, the onset thresholds for cetaceans in the new Guidance all went up (*i.e.,* are less conservative) or stayed the same (*i.e.,* ranges to effects and take estimates for TTS would go down or stay the same for cetaceans if the Navy's activities were re-modeled using the new Guidance). The onset thresholds for TTS for Phocids and Otariids went down by 2 dB and 7 dB, respectively. The previous range to effects was 70–1720m for Phocids and 230–570m for Otariids for the largest source (53C). If spherical spreading were conservatively considered, applying the new Guidance, the range to TTS for Phocids would likely be no more than approximately 100–2,200m and the range for Otariids would likely be no more than approximately 500–1,300m. The originally modeled TTS for pinnipeds was zero for all but one species. When the lower likelihood of overlap of most pinniped species (those with 0 TTS estimates) with these activities is considered in combination with their densities and the change in the size of the ensonified zone, our analysis still suggests that TTS take is not likely to occur, and those Level B take estimates have not been changed. Further, any small changes to predicted TTS takes for Northern elephant seals that might result from applying the new guidance, and specifically considering the slightly larger ensonified volume resulting from the 2 dB decrease in the threshold, would be expected to be in the form of changing a modeled behavioral harassment to a TTS, resulting in no net change in the Level B harassment take estimates.

For impulsive sound (explosives), the Navy was able to reprocess anticipated ranges to effects for Level A harassment (PTS), and subsequently ranges to effects for TTS and behavioral exposures, based on the new Guidance to assess if the new impulsive criteria could result in any additional species-specific takes. The conclusion from that analysis was that the new impulsive criteria would not change previous species-specific quantities of impulsive PTS, TTS, or behavioral exposures for any species except Dall's porpoise, and the mitigation zones described in the proposed rule (as shown in *Mitigation Zones*) for each type of explosives training activity remain sufficiently protective (*i.e.,* mitigation zones encompass newly calculated PTS zones for all explosive types and hearing groups). Consideration of the new Guidance results in an increase in take for Dall's porpoise by 3 Level A and 149 Level B harassment takes (12 TTS and 137 behavioral reactions) above what is described in Alternative 1 of the FEIS/OEIS. These updated take numbers are included in the ''Take Request'' section.

In summary, NMFS' consideration of the new Guidance does not substantially alter our assessment of the likely responses of marine mammals to acoustic sources employed by the Navy in the GOA TMAA Study Area (though take numbers have been altered slightly where appropriate as described above and in the Estimated Take section), or the likely fitness consequences of those responses. Overall, predicted auditory effects within this rulemaking would not change significantly. As described, application of the new Guidance represents only minor changes in take estimates, and would not change NMFS' final analysis and negligible impact determination. Further, the robust monitoring and mitigation measures in this final rule satisfy the ''least practicable adverse impact'' standard.

Of additional note, the definition of an ''Unusual Mortality Event,'' which is necessary to the implementation of the Navy's Stranding Response Plan, has been added to the final regulations. This addition corrects an oversight in the proposed rule and does not represent a significant change.

Background of Request

The Navy's mission is to organize, train, equip, and maintain combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. Consistent with this mission, 10 U.S.C. 5062 mandates that naval forces be trained and equipped for prompt and sustained combat incident to operations at sea, and that naval forces be prepared for the effective prosecution of war.[1] The Navy executes this responsibility by establishing and executing training programs, including at-sea training and exercises, and ensuring naval forces have access to the ranges, operating areas (OPAREAs), and airspace needed to develop and maintain skills for conducting military readiness activities.

The Navy proposes to continue conducting training activities within the Study Area, which have been ongoing since the 1990s. The tempo and types of training activities have evolved and fluctuated to some degree because of the introduction of new technologies, the dynamic nature of international events, advances in war fighting doctrine and procedures, and force structure (organization of ships, submarines, aircraft, weapons, and personnel) changes. Such developments influence the frequency, duration, intensity, and location of required training activities, but the essential character and basic level of the military readiness activities conducted in the Study Area has remained largely unchanged. The Navy's LOA request covers training activities that would occur over a five-year period beginning in May 2017. NMFS' previous MMPA incidental take authorization for the GOA TMAA expired in May 2016.

Description of the Specified Activity

The proposed rule (81 FR 9950; February 26, 2016) and GOA FSEIS/OEIS include a complete description of the Navy's specified training activities incidental to which NMFS is authorizing take of marine mammals in this final rule. Sonar use and underwater detonations are the stressors most likely to result in impacts on marine mammals that could rise to the level of harassment. Detailed descriptions of these activities are provided in the FSEIS/OEIS and in the LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*) and are summarized here.

Overview of Training Activities

The Navy routinely trains in the Study Area in preparation for national defense missions. Training activities and exercises covered in the Navy's LOA request are briefly described below, and in more detail within chapter 2 of the GOA FSEIS/OEIS. Each military training activity described meets a requirement that can be traced ultimately to requirements set forth by the National Command Authority.[2]

The Navy categorizes training activities into eight functional warfare areas called primary mission areas: Anti-air warfare; amphibious warfare; strike warfare; Anti-surface warfare (ASUW); anti-submarine warfare (ASW); electronic warfare; mine warfare (MIW); and naval special warfare (NSW). Most training activities are categorized under one of these primary mission areas; those activities that do not fall within one of these areas are in a separate

[1] Title 10, Section 5062 of the U.S.C.

[2] ''National Command Authority'' is a term used by the United States military and government to refer to the ultimate lawful source of military orders. The term refers collectively to the President of the United States (as commander-in-chief) and the United States Secretary of Defense.

''other'' category. Each warfare community (surface, subsurface, aviation, and special warfare) may train within some or all of these primary mission areas. However, not all primary mission areas are conducted within the Study Area.

The Navy described and analyzed the effects of its training activities within the GOA FSEIS/OEIS. In its assessment, the Navy concluded that of the activities conducted within the Study Area, sonar use and underwater detonations were the stressors resulting in impacts on marine mammals that could rise to the level of harassment as defined under the MMPA. Therefore, the LOA application provides the Navy's assessment of potential effects from these stressors. The specific acoustic sources used in the LOA application are contained in the GOA FSEIS/OEIS and are presented in the following sections based on the primary mission areas.

Anti-Surface Warfare (ASUW)

The mission of ASUW is to defend against enemy ships or boats. In the conduct of ASUW, aircraft use cannons, air-launched cruise missiles or other precision-guided munitions; ships employ torpedoes, naval guns, and surface-to-surface (S–S) missiles; and submarines attack surface ships using torpedoes or submarine-launched, anti-ship cruise missiles.

Anti-surface warfare training in the Study Area includes S–S gunnery and missile exercises (GUNEX and MISSILEX) and air-to-surface (A–S) bombing exercises (BOMBEX), GUNEX, and MISSILEX. Of note, the MISSILEX in GOA does not expend ordnance.

Anti-Submarine Warfare (ASW)

The mission of ASW is to locate, neutralize, and defeat hostile submarine threats to surface forces. ASW is based on the principle of a layered defense of surveillance and attack aircraft, ships, and submarines all searching for hostile submarines. These forces operate together or independently to gain early warning and detection, and to localize, track, target, and attack hostile submarine threats.

Anti-submarine warfare training addresses basic skills such as detection and classification of submarines, distinguishing between sounds made by enemy submarines and those of friendly submarines, ships, and marine life. ASW training evaluates the ability of fleet assets to use systems, for example, active and passive sonar and torpedo systems to counter hostile submarine threats. More advanced, integrated ASW training exercises are conducted in coordinated, at-sea training events involving submarines, ships, and aircraft. This training integrates the full spectrum of ASW from detecting and tracking a submarine to attacking a target using simulated weapons.

Description of Sonar, Ordnance, Targets, and Other Systems

The Navy uses a variety of sensors, platforms, weapons, and other devices to meet its mission. Training with these systems and devices may introduce acoustic (sound) energy into the environment. The Navy's current LOA application describes underwater sound as one of two types: Impulsive and non-impulsive. Sonar and similar sound producing systems are categorized as non-impulsive sound sources. Underwater detonations of explosives and other percussive events are impulsive sounds.

Sonar and Other Active Acoustic Sources

Modern sonar technology includes a variety of sonar sensor and processing systems. In concept, the simplest active sonar emits sound waves, or ''pings,'' sent out in multiple directions, and the sound waves then reflect off of the target object in multiple directions. The sonar source calculates the time it takes for the reflected sound waves to return; this calculation determines the distance to the target object. More sophisticated active sonar systems emit a ping and then rapidly scan or listen to the sound waves in a specific area. This provides both distance to the target and directional information. Even more advanced sonar systems use multiple receivers to listen to echoes from several directions simultaneously and provide efficient detection of both direction and distance. Active sonar is rarely used continuously throughout the listed activities. In general, when sonar is in use, the sonar ''pings'' occur at intervals, referred to as a duty cycle, and the signals themselves are very short in duration. For example, sonar that emits a 1-second ping every 10 seconds has a 10 percent duty cycle. The Navy's largest hull-mounted mid-frequency sonar source typically emits a 1-second ping every 50 seconds representing a 2 percent duty cycle. The Navy utilizes sonar systems and other acoustic sensors in support of a variety of mission requirements. Primary uses include the detection of and defense against submarines (ASW) and mines (MIW); safe navigation and effective communications; use of unmanned undersea vehicles; and oceanographic surveys. Sources of sonar and other active acoustic sources include surface ship sonar, sonobuoys, torpedoes, and unmanned underwater vehicles.

Ordnance and Munitions

Most ordnance and munitions used during training events fall into three basic categories: Projectiles (such as gun rounds), missiles (including rockets), and bombs. Ordnance can be further defined by their net explosive weight (NEW), which considers the type and quantity of the explosive substance without the packaging, casings, bullets, etc. NEW is the trinitrotoluene (TNT) equivalent of energetic material, which is the standard measure of strength of bombs and other explosives. For example, a 5-inch shell fired from a Navy gun is analyzed at approximately 9.5 pounds (lb.) (4.3 kilograms (kg)) of NEW. The Navy also uses non-explosive ordnance in place of explosive ordnance in many training and testing events. Non-explosive ordnance look and perform similarly to explosive ordnance, but lack the main explosive charge.

Defense Countermeasures

Naval forces depend on effective defensive countermeasures to protect themselves against missile and torpedo attack. Defensive countermeasures are devices designed to confuse, distract, and confound precision-guided munitions. Defensive countermeasures analyzed in this LOA application include acoustic countermeasures, which are used by surface ships and submarines to defend against torpedo attack. Acoustic countermeasures are either released from ships and submarines, or towed at a distance behind the ship.

Classification of Non-Impulsive and Impulsive Sources Analyzed

In order to better organize and facilitate the analysis of approximately 300 individual sources of underwater acoustic sound or explosive energy, a series of source classifications, or source bins, were developed by the Navy. The use of source classification bins provides the following benefits:

- Provides the ability for new sensors or munitions to be covered under existing regulatory authorizations, as long as those sources fall within the parameters of a ''bin'';
- Simplifies the source utilization data collection and reporting requirements anticipated under the MMPA;
- Ensures a conservative approach to all impact analysis, as all sources in a single bin are modeled as the loudest source (*e.g.,* lowest frequency, highest source level (the term ''source level'' refers to the loudness of a sound at its source), longest duty cycle, or largest NEW) within that bin, which:

○ Allows analysis to be conducted more efficiently, without compromising the results; and

○ Provides a framework to support the reallocation of source usage (hours/explosives) between different source bins, as long as the total number and severity of marine mammal takes remain within the overall analyzed and authorized limits. This flexibility is required to support evolving Navy training requirements, which are linked to real world events.

There are two primary types of acoustic sources: Impulsive and non-impulsive. A description of each source classification is provided in Tables 1 and 2. Impulsive source class bins are based on the NEW of the munitions or explosive devices or the source level for air and water guns. Non-impulsive acoustic sources are grouped into source class bins based on the frequency,[3] source level,[4] and, when warranted, the application in which the source would be used. The following factors further describe the considerations associated with the development of non-impulsive source bins.

• Frequency of the non-impulsive source:

○ Low-frequency sources operate below 1 kilohertz (kHz);

○ Mid-frequency sources operate at and above 1 kHz, up to and including 10 kHz;

○ High-frequency sources operate above 10 kHz, up to and including 100 kHz;

○ Very high-frequency sources operate above 100 kHz but below 200 kHz.

• Source level of the non-impulsive source;

○ Greater than 160 decibels (dB), but less than 180 dB;

○ Equal to 180 dB and up to 200 dB;

○ Greater than 200 dB.

• Application in which the source would be used;

○ How a sensor is employed supports how the sensor's acoustic emissions are analyzed;

○ Factors considered include pulse length (time source is on); beam pattern (whether sound is emitted as a narrow, focused beam or, as with most explosives, in all directions); and duty cycle (how often or how many times a transmission occurs in a given time period during an event).

As described in the GOA FSEIS/OEIS, non-impulsive acoustic sources that have low source levels (not loud), narrow beam widths, downward directed transmission, short pulse lengths, frequencies beyond known hearing ranges of marine mammals, or some combination of these characteristics, are not anticipated to result in takes of protected species and therefore were not modeled. These sources generally meet one of the following criteria, are considered *de mimimis* sources, and are qualitatively analyzed in the GOA FSEIS/OEIS:

• Acoustic sources with frequencies greater than 200 kHz (based on known marine mammal hearing ranges); and

• Sources with source levels less than 160 dB.

Source Classes Analyzed for Training

Table 1 shows the impulsive sources (*e.g.,* underwater explosives) associated with training activities analyzed in the Study Area, as proposed in the Navy's LOA request and described in the proposed rule. Alternative 1 of the FSEIS/OEIS, the specific activity for which the incidental taking of marine mammals is authorized pursuant to this final rule, includes zero detonations from the E6, E7, E8, and E11 source bins, as indicated in Table 1. Table 2 shows non-impulsive sources (*e.g.,* sonar) associated with training activities analyzed in the Study Area, as proposed in the Navy's LOA request and described in the proposed rule. Alternative 1 of the FSEIS/OEIS includes zero torpedoes from the TORP2 category, as indicated in Table 2. Additionally, Alternative 1 does not include live MISSILEX exercises, which were included in the proposed rule.

TABLE 1—IMPULSIVE (EXPLOSIVE) TRAINING SOURCE CLASSES ANALYZED QUANTITATIVELY

Source class	Representative munitions	Net explosive weight (lbs.)
E5	5-inch projectiles	>5–10
E6*	AGM–114 Hellfire missile	>10–20
E7*	AGM–88 High-speed Anti-Radiation Missile	>20–60
E8*	250 lb. bomb	>60–100
E9	500 lb. bomb	>100–250
E10	1,000 lb. bomb	>250–500
E11*	MK–48 torpedo	>500–650
E12	2,000 lb. bomb	>650–1,000

***Note**—these bins are not covered by this final rule, since Navy reduced their proposed activity in their incidental take request.

TABLE 2—NON-IMPULSIVE TRAINING SOURCE CLASSES ANALYZED QUANTITATIVELY

Source class category	Source class	Description of representative sources
Mid-Frequency (MF): Tactical and non-tactical sources that produce mid-frequency (1–10 kHz) signals.	MF1	Hull-mounted surface ship sonar (*e.g.,* AN/SQS–53C and AN/SQS–60).
	MF3	Hull-mounted submarine sonar (*e.g.,* AN/BQQ–10).
	MF4	Helicopter-deployed dipping sonar (*e.g.,* AN/AQS–22 and AN/AQS–13).
	MF5	Active acoustic sonobuoys (*e.g.,* DICASS).
	MF6	Active underwater sound signal devices (*e.g.,* MK–84).
	MF11	Hull-mounted surface ship sonar with an active duty cycle greater than 80%.
High-Frequency (HF): Tactical and non-tactical sources that produce high-frequency (greater than 10 kHz but less than 100 kHz) signals.	HF1	Hull-mounted submarine sonar (*e.g.,* AN/BQQ–10).
	HF6	Active sources (equal to 180 dB and up to 200 dB).

[3] Bins are based on the typical center frequency of the source. Although harmonics may be present, those harmonics would be several decibels (dB) lower than the primary frequency.

[4] Source decibel levels are expressed in terms of sound pressure level (SPL) and are values given in dB referenced to 1 micropascal at 1 meter.

TABLE 2—NON-IMPULSIVE TRAINING SOURCE CLASSES ANALYZED QUANTITATIVELY—Continued

Source class category	Source class	Description of representative sources
Anti-Submarine Warfare (ASW): Tactical sources such as active sonobuoys and acoustic countermeasures systems used during the conduct of ASW training activities.	ASW2	Mid-frequency Multistatic Active Coherent sonobuoy (*e.g.,* AN/SSQ–125).
	ASW3	Mid-frequency towed active acoustic countermeasure systems (*e.g.,* AN/SLQ–25).
	ASW4	Mid-frequency expendable active acoustic device countermeasures (*e.g.,* MK–3).
*Torpedoes (TORP): Source classes associated with the active acoustic signals produced by torpedoes.	TORP2	Heavyweight torpedo (*e.g.,* MK–48, electric vehicles).

Notes: dB = decibels, DICASS = Directional Command Activated Sonobuoy System, kHz = kilohertz.
*TORP not covered by this rule since Navy reduced their activities.

Training

The training activities with potential impacts to marine mammals that the Navy proposes to conduct in the Study Area are described in Table 3. The table is organized according to primary mission areas and includes the activity name, associated stressor(s), description of the activity, the primary platform used (*e.g.,* ship or aircraft type), duration of activity, type of non-impulsive or impulsive sources used in the activity, and the number of activities per year. More detailed activity descriptions can be found in chapter 2 of the GOA FSEIS/OEIS. The Navy's activities are anticipated to meet training needs in the years 2017–2022.

TABLE 3—TRAINING ACTIVITIES WITHIN THE STUDY AREA. ACTIVITIES NOW REFLECT NAVY'S ALTERNATIVE 1, WHICH NO LONGER INCLUDES SINKING EXERCISES AND INCLUDES ONE, INSTEAD OF TWO, CSG EXERCISES

Category	Training activity	Description	Weapons/rounds/sound source
Anti-Surface Warfare (ASUW)			
Impulsive	Gunnery Exercise, Surface-to-Surface (Ship) (GUNEX–S–S (Ship)).	Ship crews engage surface targets with ship's small-, medium-, and large-caliber guns.	Small-, Medium-, and Large-caliber high explosive rounds.
Impulsive	Bombing Exercise (Air-to-Surface) (BOMBEX (A–S)).	Fixed-wing aircrews deliver bombs against surface targets.	High explosive bombs.
Anti-Submarine Warfare (ASW)			
Non-impulsive	Tracking Exercise—Submarine (TRACKEX—Sub).	Submarine searches for, detects, and tracks submarine(s) and surface ship(s).	Mid- and high-frequency submarine sonar.
Non-impulsive	Tracking Exercise—Surface (TRACKEX—Surface).	Surface ship searches for, tracks, and detects submarine(s).	Mid-frequency surface ship sonar, acoustic countermeasures, and high-frequency active sources.
Non-impulsive	Tracking Exercise—Helicopter (TRACKEX—Helo).	Helicopter searches, tracks, and detects submarine(s).	Mid-frequency dipping sonar systems and sonobuoys.
Non-impulsive	Tracking Exercise—Maritime Patrol Aircraft (TRACKEX—MPA).	Maritime patrol aircraft use sonobuoys to search for, detect, and track submarine(s).	Sonobuoys, such as DICASS sonobuoys.
Non-impulsive	Tracking Exercise—Maritime Patrol Aircraft (MAC Sonobuoys).	Maritime patrol aircraft crews search for, detect and track submarines using MAC sonobuoys.	mid-frequency MAC sonobuoys.

Notes: DICASS = Directional Command Activated Sonobuoy System; MAC=Multistatic Active Coherent.

Summary of Impulsive and Non-Impulsive Sources

Table 4 provides a quantitative annual summary of training activities by sonar and other active acoustic source class analyzed in the Navy's LOA request. Annual use has been updated since publication of the notice for the proposed rule and now reflects Navy's Alternative 1, which results in a reduction of annual use by about half.

TABLE 4—ANNUAL HOURS AND UNITS OF SONAR AND OTHER ACTIVE ACOUSTIC SOURCES USED DURING TRAINING WITHIN THE STUDY AREA

Source class category	Source class	Units	Annual use
Mid-Frequency (MF)	MF1	Hours	271
Active sources from 1 to 10 kHz	MF3	Hours	24
	MF4	Hours	26

TABLE 4—ANNUAL HOURS AND UNITS OF SONAR AND OTHER ACTIVE ACOUSTIC SOURCES USED DURING TRAINING WITHIN THE STUDY AREA—Continued

Source class category	Source class	Units	Annual use
	MF5 *	Items	126
	MF6	Items	11
	MF11	Items	39
High-Frequency (HF): Tactical and non-tactical sources that produce signals greater than 10 kHz but less than 100 kHz.	HF1	Hours	12
	HF6	Hours	40
Anti-Submarine Warfare (ASW)	ASW2	Hours	40
Active ASW sources	ASW3	Hours	273
	ASW4 *	Items	6
Torpedoes (TORP) Source classes associated with active acoustic signals produced by torpedoes	TORP2	Items	0

* Annual use for MF5 and ASW4 was incorrectly identified in the proposed rule as 25 and 4, respectively. Annual use for these source classes is 252 and 12, respectively, for Alternative 2—but is half that here, reflecting Alternative 1.

Table 5 provides a quantitative annual summary of training explosive source classes analyzed in the Navy's LOA request. Annual number of in-water detonations has been updated since publication of the notice for the proposed rule and now reflects Navy's Alternative 1, which results in a reduction of detonations by at least half.

TABLE 5—ANNUAL NUMBER OF TRAINING EXPLOSIVE SOURCE DETONATIONS USED DURING TRAINING WITHIN THE STUDY AREA

Explosive class net explosive weight (pounds (lb.))	Annual in-water detonations training
E5 (≤5–10 lb.)	56
E6 (≤10–20 lb.)	0
E7 (≤20–60 lb.)	0
E8 (≤60–100 lb.)	0
E9 (≤100–250 lb.)	64
E10 (≤250–500 lb.)	6
E11 (≤500–650 lb.)	0
E12 (≤650–1,000 lb.)	2

Duration and Location

Training activities would be conducted in the Study Area during one exercise of up to 21 days per year between the months of April and October to support a major joint training exercise in Alaska and off the Alaskan coast that involves the Departments of the Navy, the Army, Air Force, and the U.S. Coast Guard (Coast Guard). The Service participants report to a unified or joint commander who coordinates the activities planned to demonstrate and evaluate the ability of the services to engage in a conflict and carry out plans in response to a threat to national security. Take incidental to the annual exercise would be authorized between May 2017 and May 2022.

The Study Area (see Figure 1–1 of the LOA application) is entirely at sea and is composed of the established GOA TMAA and a warning area in the Gulf of Alaska. The Navy uses ''at-sea'' to include its training activities in the Study Area that occur (1) on the ocean surface, (2) beneath the ocean surface, and (3) in the air above the ocean surface. Navy training activities occurring on or over the land outside the GOA TMAA are covered under previously prepared environmental documentation prepared by the U.S. Air Force and the U.S. Army. Gulf of Alaska Temporary Maritime Activities Area (GOA TMAA)

The GOA TMAA is a temporary area established in conjunction with the Federal Aviation Administration (FAA) for one exercise period of up to 21 days, that is a surface, undersea space, and airspace maneuver area within the Gulf of Alaska for ships, submarines, and aircraft to conduct required training activities. The GOA TMAA is a polygon roughly resembling a rectangle oriented from northwest to southeast, approximately 300 nautical miles (nm) in length by 150 nm in width, located south of Prince William Sound and east of Kodiak Island.

Airspace of the GOA TMAA

The airspace of the GOA TMAA overlies the surface and subsurface training area and is called an Altitude Reservation (ALTRV). This ALTRV is a temporary airspace designation, typically requested by the Alaskan Command (ALCOM) and coordinated through the FAA for the duration of the exercise. This overwater airspace supports the majority of aircraft training activities conducted by Navy and Joint aircraft throughout the joint training exercise. The ALTRV over the GOA TMAA typically extends from the ocean surface to 60,000 feet (ft) (18,288 meters (m)) above mean sea level and encompasses 42,146 square nautical miles (nm^2) of airspace. For safety considerations, ALTRV information is sent via Notice to Airmen (NOTAM)/ International NOTAM so that all pilots are aware of the area and that Air Traffic Control will keep known Instrument Flight Rules aircraft clear of the area.

Additionally, the GOA TMAA overlies a majority of Warning Area W–612 (W–612) located over Blying Sound, towards the northwestern quadrant of the GOA TMAA. When not included as part of the GOA TMAA, W–612 provides 2,256 nm^2 of special use airspace for the Air Force and Coast Guard to fulfill some of their training requirements. Air Force, Army, National Guard, and Coast Guard activities conducted as part of at-sea joint training within the GOA TMAA are included in the FSEIS/OEIS analysis. No Navy training activities analyzed in this final rule occur in the area of W–612 that is outside of the GOA TMAA (see Figure 1–1 of the LOA application).

Sea and Undersea Space of the GOA TMAA

The GOA TMAA surface and subsurface areas are also depicted in Figure 1–1 of the LOA application. Total surface area of the GOA TMAA is 42,146 nm^2. Due to weather conditions, annual joint training activities are typically conducted during the summer months (April–October). The GOA TMAA undersea area lies beneath the surface area as depicted in Figure 1–1 of the LOA application. The undersea area extends to the seafloor.

The complex bathymetric and oceanographic conditions, including a continental shelf, submarine canyons, numerous seamounts, and fresh water infusions from multiple sources, create a challenging environment in which to search for and detect submarines in ASW training activities. In the summer, the GOA TMAA provides a safe cold-water training environment that resembles other areas where Navy may need to operate in a real-world scenario.

The GOA TMAA meets large-scale joint exercise training objectives to

support naval and joint operational readiness by providing a ''geographically realistic'' training area for U.S. Pacific Command, Joint Task Force Commander scenario-based training, and supports the mission requirement of Alaskan Command (ALCOM) to conduct joint training for Alaska-based forces. The strategic vision of the Commander, U.S. Pacific Fleet is that the training area supports naval operational readiness by providing a realistic, live-training environment for forces assigned to the Pacific Fleet and other users with the capability and capacity to support current, emerging, and future training requirements.

Description of Marine Mammals in the Area of the Specified Activities

Twenty-two marine mammal species have confirmed or possible occurrence within or adjacent to the Study Area, including seven species of baleen whales (mysticetes), eight species of toothed whales (odontocetes), six species of seals (pinnipeds), and the sea otter (mustelid). Three of these species (gray whale, sea otter, and ribbon seal) are not expected to be taken by the training activities, as discussed in Chapter 4 of the LOA application. Nine of these species are listed under the ESA: Blue whale, fin whale, humpback whale (Distinct Population Segment (DPS) and Western North Pacific DPS), sei whale, sperm whale, gray whale (Western North Pacific stock), North Pacific right whale, Steller sea lion (Western U.S. stock), and sea otter. The ''Description of Marine Mammals in the Area of the Specified Activities'' section was included in the proposed rule (81 FR 9950, 9956–57; February 26, 2016). These descriptions have not changed, with the exception of the humpback whale. On September 8, 2016, NMFS revised the ESA listing for humpback whales to identify 14 DPSs, listing one as threatened, four as endangered, and identifying nine others as not warranted for listing (81 FR 40870). Humpback whales from the threatened Mexico DPS, endangered Western North Pacific DPS, and Hawaii DPS, which was identified as not warranted for listing, could all occur in the Study Area.

Table 6 of the proposed rule provided a list of marine mammals with possible or confirmed occurrence within the GOA TMAA Study Area, including stock, abundance, and status. Information on the status, distribution, abundance, and vocalizations of marine mammal species in the Study Area may also be viewed in Chapter 4 of the LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*). Additional information on the general biology and ecology of marine mammals is included in the GOA FSEIS/OEIS. In addition, NMFS annually publishes Stock Assessment Reports (SARs) for all marine mammals in U.S. EEZ waters, including stocks that occur within the Study Area (U.S. Pacific Marine Mammal Stock Assessments, Carretta *et al.,* 2015; Alaska Marine Mammal Stock Assessments, Muto and Angliss, 2015).

Potential Effects of Specified Activities on Marine Mammals

In the ''Potential Effects of Specified Activities on Marine Mammals'' section of the proposed rule (81 FR 9950; 9961–78; February 26, 2016), we included a qualitative discussion of the different ways that Navy training activities may potentially affect marine mammals without consideration of mitigation and monitoring measures. With the exception of the new information related to thresholds for auditory injury described earlier in this document, that information has not changed in a manner that would affect our analysis or findings and is not repeated here.

Mitigation

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, and on the availability of such species or stock for subsistence uses'' (''least practicable adverse impact''). NMFS does not have a regulatory definition for least practicable adverse impact. The NDAA for FY 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.''

As discussed in the proposed rule, in *Conservation Council for Hawaii* v. *National Marine Fisheries Service,* 97 F. Supp.3d 1210, 1229 (D. Haw. Mar. 31, 2015), the court stated that NMFS ''appear[s] to think [it] satisf[ies] the statutory 'least practicable adverse impact' requirement with a 'negligible impact' finding.'' Following publication of the proposed rule, the Ninth Circuit Court of Appeals in *Natural Resources Defense Council* v. *Pritzker,* 828 F.3d 1125, 1134 (9th Cir. July 15, 2016), expressing similar concerns in a challenge to our last SURTASS LFA sonar incidental take rule, stated, ''Compliance with the 'negligible impact' requirement does not mean there [is] compliance with the 'least practicable adverse impact standard [. . .] .'' As the Ninth Circuit noted in its opinion, however, the court was interpreting the statute without the benefit of NMFS' formal interpretation. We state here explicitly, as we have said in the past, that NMFS is in full agreement that the ''negligible impact'' and ''least practicable adverse impact'' requirements are distinct, even though both statutory standards refer to species and stocks. With that in mind, we provide further explanation of our interpretation of least practicable adverse impact, and explain what distinguishes it from the negligible impact standard. This discussion is consistent with, and expands upon, previous rules we have issued and the explanation provided in the proposed rule.

Before NMFS can issue incidental take regulations under section 101(a)(5)(A) of the MMPA, it must make a finding that the total taking will have a ''negligible impact'' on the affected ''species or stocks'' of marine mammals. NMFS' and U.S. Fish and Wildlife Service's joint implementing regulations for section 101(a)(5)(A) define ''negligible impact'' 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.'' 50 CFR 216.103 and 50 CFR 18.27(c). Recruitment (*i.e.,* reproduction) and survival rates are used to determine population growth rates [5] and, therefore are considered in evaluating population level impacts.

As we stated in the preamble to the final rule for the joint implementing regulations, not every population-level impact violates the negligible impact requirement. The negligible impact standard does not require a finding that the anticipated take will have ''no effect'' on population numbers or growth rates: ''The statutory standard does not require that the same recovery rate be maintained, rather that no significant effect on annual rates of recruitment or survival occurs [. . .] . [T]he key factor is the significance of the level of impact on rates of recruitment or survival.'' See 54 FR 40338, 40341–42 (September 29, 1989).

While some level of impact on population numbers or growth rates of a species or stock may occur and still satisfy the negligible impact requirement—even without

[5] A growth rate can be positive, negative, or flat.

consideration of mitigation—the least practicable adverse impact provision separately requires NMFS to prescribe the 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 [. . .].''[6][7]

The negligible impact and least practicable adverse impact standards in the statute share a common reference to ''species or stocks.'' A ''species'' is defined as a group of animals or plants that are similar and can produce young animals or plants: a group of related animals or plants that is smaller than a genus (*http://www.merriam-webster.com/dictionary/species*). ''Population stock'' or ''stock'' means ''a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature.'' 16 U.S.C. 1362(11). We believe those terms indisputably refer to populations of animals, and that it is therefore appropriate to view both MMPA provisions as having a population-level focus. This is consistent with both the language of the statute and Congress' overarching conservation objective in enacting the MMPA. *See* 16 U.S.C. 1361 (Congress' findings reflecting policy concerns about the extinction or depletion of certain marine mammal species or stocks and the goal of ensuring they are functioning elements of their ecosystems).

Recognizing this common focus of the two provisions on ''species or stock'' does not mean we conflate the standards; despite some common statutory language, we recognize the two provisions are different in other ways and have different functions.[8] First, a negligible impact finding is required before NMFS can issue an incidental take authorization. Although it is acceptable to use mitigation to reach a negligible impact finding, 50 CFR 216.104(c), no amount of mitigation can enable NMFS to issue an incidental take authorization for an activity that still would not meet the negligible impact standard. Moreover, even where NMFS can reach a negligible impact finding—which we emphasize does allow for the possibility of some ''negligible'' population-level impact—the agency must still prescribe practicable measures that will effect the least amount of adverse impact upon the affected species or stock.

Further, section 101(a)(5)(A)(i)(II) requires NMFS to issue, in conjunction with its authorization, binding—and enforceable—restrictions (in the form of regulations) setting forth how the activity must be conducted, thus ensuring the activity has the ''least practicable adverse impact'' on the affected species or stocks. In situations where mitigation is needed to reach a negligible impact determination, section 101(a)(5)(A)(i)(II) also provides a mechanism for ensuring compliance with the ''negligible impact'' requirement. Finally, we also reiterate that the ''least practicable adverse impact'' standard requires mitigation for marine mammal habitat, with particular attention to rookeries, mating grounds, and other areas of similar significance, and for mitigating subsistence impacts; whereas the negligible impact standard is concerned with conclusions about the impact of an activity on the affected populations.[9]

In *NRDC* v. *Pritzker,* the court stated, ''[t]he statute is properly read to mean that even if population levels are not threatened *significantly,* still the agency must adopt mitigation measures aimed at protecting *marine mammals* to the greatest extent practicable in light of military readiness needs.'' *Id.* at 1134 (emphasis added). This statement is consistent with our understanding stated above that even when the effects of an action satisfy the negligible impact standard (*i.e.,* in the court's words, ''population levels are not threatened significantly''), still the agency must prescribe mitigation under the least practicable adverse impact standard. However, as the statute indicates, the focus of both standards is ultimately the impact on the affected ''species or stock,'' and not solely focused on/directed at the impact on individual marine mammals.

We have carefully reviewed and considered the Ninth Circuit's opinion in *NRDC* v. *Pritzker* in its entirety. While the court's reference to ''marine mammals'' rather than ''marine mammal species or stocks'' in the italicized language above might be construed as a holding that the least practicable adverse impact standard applies at the individual ''marine mammal'' level, *i.e.,* that NMFS must require mitigation to minimize impacts to each individual marine mammal unless impracticable, we believe such an interpretation reflects an incomplete appreciation of the court's holding. In our view, the opinion as a whole turned on the court's determination that NMFS had not given separate and independent meaning to the least practicable adverse impact standard apart from the negligible impact standard, and further that the court's use of the term ''marine mammals'' was not addressing the question of whether the standard applies to individual animals as opposed to the species or stock as a whole. We recognize that while consideration of mitigation can play a role in a negligible impact determination, consideration of mitigation extends beyond that analysis. In evaluating what mitigation is appropriate, NMFS considers the impacts of the proposed action, the availability of measures to minimize those potential impacts, and the practicability of implementing those measures, as we describe below.

Implementation of Least Practicable Adverse Impact

Given this most recent court decision, we further clarify how we determine whether a measure or set of measures meets the ''least practicable adverse impact'' standard. Our evaluation of potential mitigation measures includes consideration of two primary factors:

(1) The manner in which, and the degree to which, implementation of the measure(s) is expected to reduce impacts to marine mammal species or stocks, their habitat, and their availability for subsistence uses (where relevant). Among other things, this analysis will consider the nature of the potential adverse impact (such as likelihood, scope, and range), the likelihood that the measure will be effective if implemented, and the likelihood of successful implementation.

(2) The practicability of the measures for applicant implementation. Practicability of implementation may consider such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. 16 U.S.C. 1371(a)(5)(A)(ii).

While the language of the least practicable adverse impact standard

[6] For purposes of this discussion we omit reference to the language in the standard for least practicable adverse impact that says we also must mitigate for subsistence impacts because they are not at issue in this action.

[7] NMFS' incidental take actions routinely refer to the least practicable adverse impact requirement in shorthand as ''mitigation,'' a concept that broadly encompasses measures or practices that are reasonably designed to avoid, reduce, or minimize impacts.

[8] See also *CBD* v. *Salazar,* 695 F.3d 893 (9th Cir. 2012) (finding that some overlap between FWS' factors for determining negligible impact and small numbers was not an improper conflation of the two standards where the agency also considered other factors in reaching its conclusions).

[9] Outside of the military readiness context, mitigation may also be appropriate to ensure compliance with the ''small numbers'' language in MMPA sections 101(a)(5)(A) and (D).

calls for minimizing impacts to affected species or stocks, we recognize that the reduction of impacts to those species or stocks accrues through the application of mitigation measures that limit impacts to individual animals. Accordingly, NMFS' analysis will focus on measures designed to avoid or minimize impacts on marine mammals from activities that are likely to increase the probability or severity of population-level effects. While direct evidence of impacts to species or stocks from a specified activity is rarely available, and additional study is still needed to describe how specific disturbance events affect the fitness of individuals of certain species, there have been improvements in understanding the process by which disturbance effects are translated to the population. With recent scientific advancements (both marine mammal energetic research and the development of energetic frameworks), the relative likelihood or degree of impacts on species or stocks may often be inferred given a detailed understanding of the activity, the environment, and the affected species or stocks. This same information is used in the development of mitigation measures and helps us understand how mitigation measures contribute to lessening species or stock effects.

In the evaluation of specific measures, the details of the specified activity will necessarily inform each of the two factors and will be carefully considered to determine the types of mitigation that are appropriate under the least practicable adverse impact standard. The greater the likelihood that a measure will contribute to reducing the probability or severity of adverse impacts to the species or stock, the greater the weight that measure(s) is given when considered in combination with practicability to determine the appropriateness of the mitigation measure(s), and vice versa.

Below we discuss how these factors are considered.

1. Reduction of adverse impacts to species or stock. The emphasis given to a measure's ability to reduce the impacts on a species or stock considers the degree, likelihood, and context of the anticipated reduction of impacts to individuals as well as the status of the species or stock.

The ultimate impact on any individual from a disturbance event (which informs the likelihood of adverse species or stock-level effects) is dependent on the circumstances and associated contextual factors, such as duration of exposure to stressors. Though any proposed mitigation needs to be evaluated in the context of the specific activity and the species or stocks affected, measures with the following types of goals are often applied to reduce the likelihood or severity of adverse species or stock-level impacts: Avoiding or minimizing injury or mortality; limiting interruption of known feeding, breeding, mother/young, or resting behaviors; minimizing the abandonment of important habitat (temporally and spatially); minimizing the number of individuals subjected to these types of disruptions; and limiting degradation of habitat. Mitigating these types of effects is intended to reduce the likelihood that the activity will result in energetic or other types of impacts that are more likely to result in reduced reproductive success or survivorship. It is also important to consider the degree of impacts that were expected in the absence of mitigation in order to assess the added value of any potential measures.

The status of the species or stock is also relevant in evaluating the appropriateness of certain mitigation measures in the context of least practicable adverse impact. The following are examples of factors that may (either alone, or in combination) result in greater emphasis on the importance of a mitigation measure in reducing impacts on a species or stock: The stock is known to be decreasing or status is unknown, but believed to be declining; the known annual mortality (from any source) is approaching or exceeding the potential biological removal (PBR) level (as defined in 16 U.S.C. 1362(20)); the affected species or stock is a small, resident population; or the stock is involved in an unusual mortality event (UME) or has other known vulnerabilities, such as recovering from an oil spill.

Reduction of habitat impacts. Habitat mitigation, particularly as it relates to rookeries, mating grounds, and areas of similar significance, is also relevant and can include measures, such as reducing impacts of the activity on known prey utilized in the activity area or reducing impacts on physical habitat.

Likely effectiveness of the measure. We consider available information indicating the likelihood of any measure to accomplish its objective. If evidence shows that a measure has not typically been effective or successful, then either that measure should be modified, or the potential value of the measure to reduce effects is lowered.

2. Practicability. Factors considered may include cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. 16 U.S.C. 1371(a)(5)(A)(ii).

The above section describes the factors considered in making a least practicable adverse impact finding. In summary, NMFS will carefully balance the likelihood and degree to which a measure(s) will reduce adverse impacts on species or stocks with the measure's practicability in determining appropriate mitigation measures.

NMFS reviewed the proposed activities and the proposed mitigation measures as described in the Navy's LOA application to determine if they would result in the least practicable adverse effect on marine mammal species or stocks. NMFS described the Navy's proposed mitigation measures in detail in the proposed rule (81 FR 9950, 9978–86; February 26, 2016). As described below and in responses to comments, and in the GOA FSEIS/OEIS, some additional measures were also considered and analyzed. Time/area specific mitigation measures considered by the Navy and NMFS for the Navy's low use of hull-mounted mid-frequency active sonar and explosives activities in certain areas of particular importance to specific marine mammals have been clarified and described below (see ''Consideration of Time/Area Limitations'') and in the ''Comments and Responses'' section of this rule. This final rule includes the adoption of a new ''Cautionary Area'' for North Pacific right whales. This additional time/area specific measure is also included in the regulatory text (see § 218.154 Mitigation) at the end of this rule. Other additional mitigation measures were considered but ultimately not chosen for implementation because they were unlikely to reduce impacts to marine mammals or implementation was considered unacceptable with regard to personal safety, practicality of implementation, and impact on effectiveness of the military readiness activity. Separately, as mentioned previously, live MISSILEX exercises were eliminated from the Navy's proposed activities covered under this Final Rule and, therefore, the associated mitigation measures for live MISSILEX exercises that were included in the proposed rule have been removed from the Final Rule. In addition, further details were added to one of the mitigation zones regarding close approaches to marine mammals by vessels to clarify when it is applicable.

Below are the mitigation measures as agreed upon by the Navy and NMFS. For additional details regarding the Navy's mitigation measures, see the ''Proposed Mitigation'' section of the

proposed rule (81 FR 9950, 9978–86; February 26, 2016) and Chapter 5 in the GOA FSEIS/OEIS.

Lookouts

The Navy shall have two types of Lookouts for the purposes of conducting visual observations: Those positioned on ships; and those positioned ashore, in aircraft, or on small boats. Lookouts positioned on ships shall diligently observe the air and surface of the water. They shall have multiple observation objectives, which include but are not limited to detecting the presence of biological resources and recreational or fishing boats, observing the mitigation zones, and monitoring for vessel and personnel safety concerns.

Due to manning and space restrictions on aircraft, small boats, and some Navy ships, Lookouts for these platforms may be supplemented by the aircraft crew or pilot, boat crew, range site personnel, or shore-side personnel. Lookouts positioned in minimally manned platforms may be responsible for tasks in addition to observing the air or surface of the water (*e.g.,* navigation of a helicopter or small boat). However, all Lookouts shall, considering personnel safety, practicality of implementation, and impact on the effectiveness of the activity, comply with the observation objectives described above for Lookouts positioned on ships.

The procedural measures described in the remainder of this section primarily consist of having Lookouts during specific training activities.

All personnel standing watch on the bridge, Commanding Officers, Executive Officers, maritime patrol aircraft aircrews, anti-submarine warfare helicopter crews, civilian equivalents, and Lookouts shall successfully complete the United States Navy Marine Species Awareness Training prior to standing watch or serving as a Lookout. Additional details on the Navy's Marine Species Awareness Training can be found in the GOA FSEIS/OEIS. The Navy shall use one or more Lookouts during the training activities described below, which are organized by stressor category.

Non-Impulsive Sound

Hull Mounted Mid-Frequency Active Sonar (MFAS)

The Navy's previous Lookout mitigation measures during training activities involving hull-mounted MFAS in the GOA TMAA included requirements such as the number of personnel on watch and the manner in which personnel are to visually search the area in the vicinity of the ongoing activity. The Navy shall maintain the number of Lookouts required by the Phase I incidental take rule and LOA for the GOA TMAA for ships using hull-mounted MFAS.

Ships using hull-mounted MFAS sources associated with ASW activities at sea (with the exception of ships less than 65 ft (20 m) in length, which are minimally manned) will have two Lookouts at the forward position. While using hull-mounted MFAS sources underway, vessels less than 65 ft (20 m) in length and ships that are minimally manned shall have one Lookout at the forward position due to space and manning restrictions.

High-Frequency and Non-Hull-Mounted Mid-Frequency Active Sonar

The Navy plans to conduct activities using high-frequency and non-hull-mounted MFAS in the Study Area. Non-hull-mounted MFAS training activities include the use of aircraft deployed sonobuoys, helicopter dipping sonar, and submarine sonar. During those activities, the Navy shall employ the following mitigation measures regarding Lookout procedures:

- 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.
- 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.

The Navy shall continue to use the number of Lookouts (one) required by the Phase I incidental take rule and LOA for the GOA TMAA for ships or aircraft conducting non-hull-mounted MFA sonar activities.

The Phase I incidental take rule and LOA for the GOA TMAA did not include mitigation measures for other high-frequency active sonar activities associated with ASW, or for new platforms; therefore, the Navy shall add a new Lookout and other measures for these activities and on these platforms when conducted in the Study Area. The measure is: The Navy shall have one Lookout on ships conducting high-frequency or non-hull mounted mid-frequency active sonar activities associated with ASW activities at sea.

Explosives and Impulsive Sound

Improved Extended Echo Ranging Sonobuoys

The Navy is not proposing use of Improved Extended Echo Ranging Sonobuoys during the GOA TMAA training activities.

Explosive Signal Underwater Sound Buoys Using >0.5–2.5 Pound Net Explosive Weight

The previous, and first, incidental take rule and LOA (Phase I) for the GOA TMAA did not include lookout measures for explosive signal underwater sound (SUS) buoy activities using >0.5–2.5 pound (lb.) NEW. The Navy shall add this measure. Aircraft conducting SUS activities using >0.5–2.5 lb. NEW will have one Lookout.

Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target

The following Lookout procedures during gunnery exercises are included:

- From the intended firing position, trained Lookouts shall survey the mitigation zone for marine mammals prior to commencement and during the exercise as long as practicable.
- 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.

The Navy shall continue using these Lookout procedures previously implemented for this activity. The Navy shall have one Lookout on the vessel or aircraft conducting small-, medium-, or large-caliber gunnery exercises against a surface target. Towing vessels shall also maintain one Lookout.

Missile Exercises Using a Surface Target

The following Lookout procedures during missile exercises are included:

- Aircraft shall visually survey the target area for marine mammals. Visual inspection of the target area shall be made by flying at 1,500 ft (457 m) 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.

The Navy shall continue using the Lookout procedures previously implemented for this activity. When aircraft are conducting missile exercises against a surface target, the Navy shall have one Lookout positioned in an aircraft.

Bombing Exercises (Explosive)

The following Lookout procedures during bombing exercises are included:

- If surface vessels are involved, Lookouts shall survey for floating kelp and marine mammals.
- Aircraft shall visually survey the target and mitigation 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 (460 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 Navy shall continue implementing these measures for bombing exercises, and shall have one Lookout positioned in an aircraft conducting bombing exercises, and trained Lookouts in any surface vessels involved.

Weapons Firing Noise During Gunnery Exercises

The Navy shall continue using the number of Lookouts previously required by the Phase I GOA incidental take rule and LOA for gunnery exercises. The Navy shall have one Lookout on the ship conducting explosive and non-explosive gunnery exercises. This may be the same Lookout described for Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target when that activity is conducted from a ship against a surface target.

Physical Disturbance and Strike

Vessels

The Navy shall employ the following Lookout procedures to avoid physical disturbance and strike of marine mammals during at-sea training:

- While underway, surface vessels shall have at least one Lookout with binoculars, and 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 Officer of the Deck the presence of marine mammals.

Non-Explosive Practice Munitions

Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target

The Navy employs the same mitigation measures for non-explosive practice munitions—small-, medium-, and large-caliber gunnery exercises—as described above for Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target.

The Navy shall continue using the number of Lookouts previously implemented for these activities pursuant to the Phase I incidental take rule and LOA for the GOA TMAA. The Navy shall have one Lookout during activities involving non-explosive practice munitions (*e.g.,* small-, medium-, and large-caliber gunnery exercises) against a surface target.

Missile Exercises Using a Surface Target

No MISSILEX using live ordnance will be conducted in GOA. When aircraft are conducting non-explosive missile exercises (including exercises using rockets) against a surface target, the Navy shall have one Lookout positioned in an aircraft.

Bombing Exercises (Non-explosive)

The Navy employs the same mitigation measures for non-explosive bombing exercises as described for Bombing Exercises (Explosive).

The Navy shall continue using the same Lookout procedures previously implemented for these activities pursuant to the Phase I incidental take rule and LOA for the GOA TMAA. The Navy will have one Lookout positioned in an aircraft during non-explosive bombing exercises, and trained Lookouts in any surface vessels involved.

Mitigation Zones

The Navy shall use mitigation zones to reduce the potential impacts to marine mammals from training activities. Mitigation zones are measured as the radius from a source. Unique to each activity category, each radius represents a distance that the Navy will visually observe to help reduce injury to marine species. Visual detections of applicable marine species will be communicated immediately to the appropriate watch station for information dissemination and appropriate action. If the presence of marine mammals is detected acoustically, Lookouts posted in aircraft and on surface vessels will increase the vigilance of their visual surveillance. As a reference, aerial surveys are typically made by flying at 1,500 ft (457 m) altitude or lower at the slowest safe speed.

Many of the proposed activities have mitigation measures that were implemented during the Navy's Phase I activities in the GOA TMAA as required by previous environmental documents or consultations. Most of the mitigation zones for activities that involve the use of impulsive and non-impulsive sources were originally designed to reduce the potential for onset of TTS. For the GOA FSEIS/OEIS and the LOA application, the Navy updated the acoustic propagation modeling to incorporate updated hearing threshold metrics (*i.e.,* upper and lower frequency limits), updated density data for marine mammals, and factors such as an animal's likely presence at various depths. An explanation of the acoustic propagation modeling process can be found in the Determination of Acoustic Effects on Marine Mammals for the Gulf of Alaska Training SEIS/OEIS Technical Report (Marine Species Modeling Team, 2015). Additionally, since publication of the proposed rule, the Navy re-evaluated the range to effects in consideration of the acoustic thresholds in NMFS' new Guidance, which resulted in larger ranges for some explosive sources.

As a result of the updates described above, in some cases the ranges to onset of TTS effects are much larger than previous model outputs (*i.e.,* those used in the first GOA rule (76 FR 25480; May 4, 2011)). Due to the ineffectiveness and unacceptable operational impacts associated with enlarging the mitigation zones to alleviate impacts in these larger areas, the Navy is unable to mitigate for onset of TTS for every activity. For this GOA TMAA analysis, the Navy developed each recommended mitigation zone to avoid or reduce the potential for onset PTS, out to the predicted maximum range. In some cases, where the ranges to effects are smaller than previous models estimated, the mitigation zones were adjusted accordingly to provide consistency across the measures. Mitigating to the predicted maximum range to PTS consequently also mitigates to the predicted maximum range to onset mortality (1 percent mortality), onset slight lung injury, and onset slight gastrointestinal tract injury, since the maximum range to effects for these criteria are shorter than for PTS. Furthermore, in most cases, the predicted maximum range to PTS also consequently covers the predicted average range to TTS. Table 6 summarizes the predicted average range to TTS, average range to PTS, maximum range to PTS, and recommended mitigation zone for each activity category, based on the Navy's acoustic propagation modeling results and updated by consideration of the new acoustic guidance.

The activity-specific mitigation zones are based on the longest range for all the functional hearing groups. The mitigation zone for a majority of activities is driven by either the high-frequency cetaceans or the sea turtles functional hearing groups. Therefore, the mitigation zones are even more protective for the remaining functional hearing groups (*i.e.,* low-frequency cetaceans, mid-frequency cetaceans, and pinnipeds), and likely cover a larger

portion of the potential range to onset of TTS.

Table 6 includes explosive ranges to TTS and the onset of auditory injury, non-auditory injury, slight lung injury, and mortality. For every source but one proposed for use by the Navy, the mitigation zones included in Table 6 exceed each of these ranges. The TTS range for BOMBEX is larger than the mitigation zone. The mitigation zones and their associated assessments are provided throughout the remainder of this section.

TABLE 6—PREDICTED RANGES TO EFFECTS AND RECOMMENDED MITIGATION ZONES FOR EACH ACTIVITY CATEGORY

Activity category	Representative source (Bin) [1]	Predicted (longest) average range to TTS	Predicted (longest) average range to PTS	Predicted maximum range to PTS	Mitigation zone [2]
Non-Impulse Sound					
Hull-Mounted Mid-Frequency Active Sonar.	SQS–53 ASW hull-mounted sonar (MF1).	3,821 yd. (3,493 m) for one ping.	100 yd. (91 m) for one ping.	Not applicable ..	6 dB power down at 1,000 yd. (914 m); 4 dB power down at 500 yd. (457 m); and shutdown at 200 yd. (183 m).
High-Frequency and Non-Hull Mounted Mid-Frequency Active Sonar.	AQS–22 ASW dipping sonar (MF4).	230 yd. (210 m) for one ping.	20 yd. (18 m) for one ping.	Not applicable ..	200 yd. (183 m).
Explosive and Impulse Sound					
Signal Underwater Sound (SUS) buoys using >0.5–2.5 lb. NEW.	Explosive sonobuoy (E3).	290 yd. (265 m)	113 yd. (103 m)	309 yd. (283 m)	350 yd. (320 m).
Gunnery Exercises—Small- and Medium-Caliber (Surface Target).	40 mm projectiles (E2).	190 yd. (174 m)	83 yd. (76 m) ...	182 yd. (167 m)	200 yd. (183 m).
Gunnery Exercises—Large-Caliber (Surface Target) [3].	5 in. projectiles (E5).	771 yd. (705 m)	327 yd. (299 m)	327 yd. (299 m)	600 yd. (549 m).
Bombing Exercises [4]	MK–84 2,000 lb. (E12).	5,430 yd. (4,965 m).	1,772 yd. (1,620 m).	1,851 yd. (1,693 m).	2,500 yd. (2,286 m).

[1] This table does not provide an inclusive list of all sources in a given bins; bins presented here represent the source bin with the largest range to effects within the given activity category.

[2] Recommended mitigation zones are larger than the modeled injury zones to account for multiple types of sources or charges being used. See Section 5.3.2 of the GOA FSEIS/OEIS and Section 11.2 of the LOA application (Mitigation Zone Procedural Measures) for a general discussion of mitigation zones, how they are implemented, and the potential effects they are designed to reduce; see Chapter 11 of the LOA application for a discussion of the biological effectiveness and operational assessments for each activity's recommended mitigation zone.

[3] Bin E5 TTS Value corrected from Proposed Rule table to reflect correct GOA-specific value for average TTS (Table 3.8–18 of the GOA FSEIS/OEIS). PTS re-assessed using NOAA's August 2016 revised explosive acoustic criteria applicable to the most sensitive functional hearing group. PTS value for bin E5 was lower than previously modeled range, so TTS not recalculated and TTS value from previous model shown as conservative (over predictive) value. Lower weight bins re-assessed similarly did not result in any values larger than existing values shown.

[4] Bin E12 PTS and TTS re-assessed using NOAA's August 2016 revised explosive acoustic criteria applicable to the most sensitive functional hearing group.

Notes: lb. = pounds, m = meters, yd. = yards; PTS = Permanent Threshold Shift, TTS = Temporary Threshold Shift.

For some activities specified throughout the remainder of this section, Lookouts may be required to observe for concentrations of detached floating vegetation (Sargassum or kelp paddies), which are indicators of potential marine mammal presence within the mitigation zone. Those specified activities will not commence if floating vegetation (Sargassum or kelp paddies) is observed within the mitigation zone prior to the initial start of the activity. If floating vegetation is observed prior to the initial start of the activity, the activity will be relocated to an area where no floating vegetation is observed. Training will not cease as a result of floating vegetation entering the mitigation zone after activities have commenced. This measure is intended only for floating vegetation detached from the seafloor.

Non-Impulsive Sound

Hull-Mounted Mid-Frequency Active Sonar

Activities that involve the use of hull-mounted MFA sonar will use Lookouts for visual observation from a ship immediately before and during the activity. Mitigation zones for these activities involve powering down the sonar by 6 dB when a marine mammal is sighted within 1,000 yd (914 m) of the sonar dome, and by an additional 4 dB when sighted within 500 yd (457 m) from the source, for a total reduction of 10 dB. Active transmissions will cease if a marine mammal is sighted within 200 yd (183 m). Active transmission will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, (3) the mitigation zone has been clear from any additional sightings for a period of 30 minutes, (4) the ship has transited more than 2,000 yd (1.8 km) beyond the location of the last sighting, or (5) the ship concludes that dolphins are deliberately closing in on the ship to ride the ship's bow wave (and there are no other marine mammal sightings within the mitigation zone). Active transmission may resume when dolphins are bow riding because they are out of the main transmission axis of the active sonar while in the shallow-wave area of the ship bow.

High-Frequency and Non-Hull-Mounted Mid-Frequency Active Sonar

Mitigation will include visual observation from a vessel or aircraft (with the exception of platforms operating at high altitudes) immediately before and during active transmission within a mitigation zone of 200 yd (183 m) from the active sonar source. For activities involving helicopter deployed

dipping sonar, visual observation will commence 10 minutes before the first deployment of active dipping sonar. Helicopter dipping and sonobuoy deployment will not begin if concentrations of floating vegetation (kelp paddies), are observed in the mitigation zone. If the source can be turned off during the activity, active transmission will cease if a marine mammal is sighted within the mitigation zone. Active transmission will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes for an aircraft-deployed source, (4) the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a vessel-deployed source, (5) the vessel or aircraft has repositioned itself more than 400 yd (370 m) away from the location of the last sighting, or (6) the vessel concludes that dolphins are deliberately closing in to ride the vessel's bow wave (and there are no other marine mammal sightings within the mitigation zone).

Explosives and Impulsive Sound

Explosive Signal Underwater Sound Buoys Using >0.5–2.5 Pound Net Explosive Weight

Mitigation will include pre-exercise aerial monitoring during deployment within a mitigation zone of 350 yd (320 m) around an explosive SUS buoy. Explosive SUS buoys will not be deployed if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone (around the intended deployment location). SUS deployment will cease if a marine mammal is sighted within the mitigation zone. Deployment will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, or (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes.

Passive acoustic monitoring will also be conducted with Navy assets, such as sonobuoys, already participating in the activity. These assets would only detect vocalizing marine mammals within the frequency bands monitored by Navy personnel. Passive acoustic detections would not provide range or bearing to detected animals, and therefore cannot provide locations of these animals. Passive acoustic detections would be reported to Lookouts posted in aircraft in order to increase vigilance of their visual surveillance.

Gunnery Exercises—Small- and Medium-Caliber Using a Surface Target

Mitigation will include visual observation from a vessel or aircraft immediately before and during the exercise within a mitigation zone of 200 yd (183 m) around the intended impact location. Vessels will observe the mitigation zone from the firing position. When aircraft are firing, the aircrew will maintain visual watch of the mitigation zone during the activity. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing will cease if a marine mammal is sighted within the mitigation zone. Firing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes for a firing aircraft, (4) the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a firing ship, or (5) the intended target location has been repositioned more than 400 yd (366 m) away from the location of the last sighting.

Gunnery Exercises—Large-Caliber Explosive Rounds Using a Surface Target

Mitigation will include visual observation from a ship immediately before and during the exercise within a mitigation zone of 600 yd (549 m) around the intended impact location. Ships will observe the mitigation zone from the firing position. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing will cease if a marine mammal is sighted within the mitigation zone. Firing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, or (3) the mitigation zone has been clear from any additional sightings for a period of 30 minutes.

Bombing Exercises (Explosive)

During Phase I activities, the Navy employed the following mitigation zone procedures during bombing exercises:

- Explosive ordnance shall not be targeted to impact within 2,500 yd (2.3 km) of known or observed floating kelp or marine mammals.
- A 2,500 yd (2.3 km) radius mitigation zone shall be established around the intended target.
- The exercise will be conducted only if marine mammals are not visible within the mitigation zone.

The Navy will (1) maintain the previously required mitigation zone to be used for non-explosive bombing activities, (2) revise the mitigation zone procedures to account for predicted ranges to impacts to marine species when high explosive bombs are used, and (3) add a requirement to visually observe for kelp paddies.

Mitigation will include visual observation from the aircraft immediately before the exercise and during target approach within a mitigation zone of 2,500 yd (2.3 km) around the intended impact location for explosive bombs and 1,000 yd (920 m) for non-explosive bombs. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Bombing will cease if a marine mammal is sighted within the mitigation zone. Bombing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, or (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes.

Weapons Firing Noise During Gunnery Exercises—Large-Caliber

The Navy employed no mitigation zone procedures for this activity in the Study Area during Phase I training activities in the GOA TMAA.

For Phase II activities, the Navy will adopt measures currently used during Navy gunnery exercises in other ranges outside of the Study Area. For all explosive and non-explosive large-caliber gunnery exercises conducted from a ship, mitigation will include visual observation immediately before and during the exercise within a mitigation zone of 70 yd (64 m) within 30 degrees on either side of the gun target line on the firing side. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing will cease if a marine mammal is sighted within the mitigation zone. Firing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and

speed, (3) the mitigation zone has been clear from any additional sightings for a period of 30 minutes, or (4) the vessel has repositioned itself more than 140 yd (128 m) away from the location of the last sighting.

Physical Disturbance and Strike

Vessels

The Navy will use a 500 yd (457 m) mitigation zone for whales, and a 200 yd (183 m) mitigation zone for all other marine mammals. Vessels will avoid approaching marine mammals head on and will maneuver to maintain a mitigation zone of 500 yd (457 m) around observed whales and 200 yd (183 m) around all other marine mammals (except bow-riding dolphins), providing it is safe to do so. These requirements will not apply if a vessel's safety is threatened, such as when change of course will create an imminent and serious threat to a person, vessel, or aircraft, and to the extent vessels are restricted in their ability to maneuver. Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged activities, launching and recovering aircraft or landing craft, minesweeping activities, replenishment while underway, and towing activities that severely restrict a vessel's ability to deviate course. While in transit, Navy 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 sighted object or disturbance, including any marine mammal or sea turtle, and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

Towed In-Water Devices

The Navy employed no mitigation zone procedures for this activity in the Study Area during Phase I training activities in the GOA TMAA.

During Phase II activities in the GOA TMAA, the Navy will adopt measures currently used in other ranges outside of the Study Area during activities involving towed in-water devices. The Navy will ensure that towed in-water devices being towed from manned platforms avoid coming within a mitigation zone of 250 yd (229 m) around any observed marine mammal, providing it is safe to do so.

Non-Explosive Practice Munitions

Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target

The Navy will employ the same mitigation measures for non-explosive gunnery exercises as described above for Gunnery Exercises—Small-, Medium-, and Large-Caliber Using a Surface Target.

Mitigation will include visual observation from a vessel or aircraft immediately before and during the exercise within a mitigation zone of 200 yd (183 m) around the intended impact location. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing will cease if a marine mammal is sighted within the mitigation zone. Firing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes for a firing aircraft, (4) the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a firing ship, or (5) the intended target location has been repositioned more than 400 yd (366 m) away from the location of the last sighting.

Bombing Exercises (Non-explosive)

Mitigation will include visual observation from the aircraft immediately before the exercise and during target approach within a mitigation zone of 1,000 yd (914 m) around the intended impact location. The exercise will not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Bombing will cease if a marine mammal is sighted within the mitigation zone. Bombing will recommence if any one of the following conditions is met: (1) The animal is observed exiting the mitigation zone, (2) the animal is thought to have exited the mitigation zone based on its course and speed, or (3) the mitigation zone has been clear from any additional sightings for a period of 10 minutes.

Consideration of Time/Area Limitations

Biologically Important Areas

The Navy's and NMFS' analysis of effects to marine mammals considers the best available science regarding locations where cetaceans are known to engage in specific activities (*e.g.,* feeding, breeding/calving, or migration) at certain times of the year that are important to individual animals as well as populations of marine mammals or where small resident populations may be found (see discussion in Van Parijs, 2015). Where data were available, Van Parijs (2015) identified areas that are important in this way and named the areas Biologically Important Areas (BIAs). It is important to note that the BIAs were not meant to define exclusionary zones, nor were they meant to be locations that serve as sanctuaries from human activity, or areas analogous to marine protected areas (see Ferguson *et al.* (2015a) regarding the envisioned purpose for the BIA designations). NMFS' recognition of an area as biologically important for some species activity is not equivalent to designation of critical habitat under the Endangered Species Act (ESA). Furthermore, the BIAs identified by NMFS in and around the Study Area do not represent the totality of important habitat throughout the marine mammals' full range. The delineation of BIAs does not have direct or immediate regulatory consequences, although it is appropriate to consider them as part of the body of science that may inform mitigation decisions, depending on the circumstances. The intention was that the BIAs would serve as resource management tools and that they be considered along with, and not to the exclusion of, ''existing density estimates, range-wide distribution data, information on population trends and life history parameters, known threats to the population, and other relevant information'' (Van Parijs, 2015). The Navy and NMFS have supported and will continue to support the Cetacean and Sound Mapping project, including representation on the Cetacean Density and distribution Working Group (CetMap), which informed NMFS' identification of BIAs. The same marine mammal density data present in the Navy's Marine Species Density Database Technical Report (U.S. Department of the Navy, 2014) and used in the analysis for the GOA SEIS/OEIS was used in the development of BIAs. The final products, including the Gulf of Alaska BIAs, from this mapping effort were completed and published in March 2015 (Aquatic Mammals, 2015; Calambokidis *et al.,* 2015; Ferguson *et al.,* 2015a, 2015b; Van Parijs, 2015). 131 BIAs for 24 marine mammal species, stocks, or populations in seven regions within U.S. waters were identified (Ferguson *et al.,* 2015a). BIAs have been identified in the Gulf of Alaska and include migration and feeding areas for gray whale and North Pacific right whale, respectively. Fin whale feeding areas

(east, west, and southwest of Kodiak Island) occur to the west of the GOA TMAA and gray whale feeding areas occur both east (Southeast Alaska) and west (Kodiak Island) of the GOA TMAA; however, these feeding areas are located well outside of (>20 nautical miles) the Study Area and beyond the Navy's estimated range to effects for Level A and B harassment.

NMFS' Office of Protected Resources routinely considers available information about marine mammal habitat use to inform discussions with applicants regarding potential spatio-temporal limitations on their activities that might help effect the least practicable adverse impact on species or stocks and their habitat. BIAs are useful tools for planning and impact assessments and are being provided to the public via this Web site: *www.cetsound.noaa.gov.* While these BIAs are useful tools for analysts, any decisions regarding protective measures based on these areas must go through the normal MMPA evaluation process (or any other statutory process that the BIAs are used to inform); the identification of a BIA does not pre-suppose any specific management decision associated with those areas, nor does it have direct or immediate regulatory consequences. NMFS and the Navy have discussed the BIAs listed above, what Navy activities take place in these areas (in the context of what their effects on marine mammals might be or whether additional mitigation is necessary), and what measures could be implemented to reduce impacts in these areas (in the context of their potential to reduce marine mammal species or stock-level impacts and their practicability). An assessment of the potential spatio-temporal and activity overlap of Navy training activities with the Gulf of Alaska BIAs listed above is included below and in Chapter 3.8 of the GOA FSEIS/OEIS. If, through the adaptive management process or otherwise, it becomes apparent that certain other time-area measures are warranted or are practicable, NMFS and Navy will evaluate these measures within the context of the least practicable impact requirement.

Spatial and Temporal Overlap with North Pacific Right Whale Feeding Area—The feeding area for North Pacific right whales (see Ferguson *et al.,* 2015b) overlaps slightly with the GOA TMAA's southwestern corner. This feeding area is applicable from June to September so there is temporal overlap with the proposed Navy training but there is minimal spatial overlap between this feeding area and the GOA TMAA (see Figure 3.8–2 of the GOA FSEIS/OEIS).

Given their current extremely low population numbers (the North Pacific right whale is one of the most endangered whale species in the world with approximately 31 individuals) and the general lack of sightings in the Gulf of Alaska, the occurrence of right whales in the GOA TMAA is considered rare. North Pacific right whales have not been visually detected in the GOA TMAA since at least the 1960s and there are no current known detections in the portion of the feeding area that overlaps with the GOA TMAA. The Quinn Seamount passive acoustic detections in summer 2013 (Širović *et al.,* 2014) are the only known potential occurrence records of this species in the GOA TMAA in recent years. The Navy's effects analysis predicts the potential for up to only three Level B behavioral takes annually to North Pacific right whales. These takes are reflected in this final rule. This analysis was based on assigning a nominal North Pacific right whale density to the entire GOA TMAA to account for historic and potential future occurrence in all areas of the TMAA both onshelf and offshelf, and not just associated with the feeding area. However, as discussed above, North Pacific right whales have only potentially been detected in a small portion of the GOA TMAA. Therefore, this predicted level of take is highly conservative.

Spatial and Temporal Overlap with Gray Whale Migratory Area—The migration area for gray whales, which was bounded by the extent of the continental shelf (as provided in Ferguson *et al.,* 2015b), has slight (approximately 1 percent) overlap with the GOA TMAA at its northernmost corner and western edge (see Ferguson *et al.,* 2015b; See Figure 3.8–4 of the GOA FSEIS/OEIS). However, this migration area is applicable only between March to May (Spring) and November to January (Fall) (Ferguson *et al.,* 2015b). This gray whale migration area would not be applicable during the months when training has historically occurred (June/July) and would have minimal temporal overlap with most of the proposed timeframe (April to October; summer) for Navy training in the GOA TMAA. The Navy's acoustic analysis did not predict any takes of gray whales in the GOA TMAA based on acoustic effects modeling that considered gray whale occurrence and density as well as the types and quantities of Navy training being authorized, and NMFS is not authorizing any takes of this species (see *Group and Species-Specific Analysis* section later in this final rule).

Analysis of Potential Training Overlap with BIAs—The Location of the GOA TMAA affords aircraft from Navy carrier strike groups supporting joint exercises with the Air Force ability to reach inland established Air Force and Army instrumented land ranges where they conduct air to air ground training. The location of the GOA TMAA also allows appropriate distance limitations to support Air Force aircraft reaching the TMAA without needing to refuel to conduct training at sea with the carrier strike group. Therefore, the GOA TMAA as currently sited is dependent on these location-specific factors to satisfy safety and practicality concerns. However, it is unlikely that Navy training using hull-mounted mid-frequency active sonar or explosives training would occur in these nearshore locations adjacent to the GOA TMAA boundary where the overlap with BIAs occurs. To ensure that the Navy is able to conduct realistic training, Navy units must maintain sufficient room to maneuver. Therefore, training activities using sonar and explosives will typically take place some distance away from an operating area boundary to ensure sufficient sea or air space is available for tactical maneuvers within an approved operating area such as the GOA TMAA. The Navy also does not typically train next to any limiting boundary of the GOA TMAA because it precludes tactical consideration of the adjacent sea space and airspace beyond the boundary from being a potential threat axis during activities such as anti-submarine warfare training. It is also the case that Navy training activities will generally not be located where it is likely there would be interference from civilian vessels and aircraft that are not participating in the training activity. The nearshore boundary of the GOA TMAA is the location for multiple commercial vessel transit lanes, ship traffic, and low-altitude air routes, which all pass through the feeding area and the migration area (see Figure 3.8–9 of the GOA FSEIS/OEIS). This level of civilian activity may otherwise conflict with Navy training activities if those Navy activities were located at that margin of the GOA TMAA and as a result such an area is generally avoided. There are northeastern and northwestern areas of the GOA TMAA, portions of which overlap the BIAs, that could be used for other non-acoustic and non-explosive Navy training events, including vessel movements. As detailed in the GOA FSEIS/OEIS, these could include up to 24 Visit, Board,

Search, and Seizure training activities and 28 Maritime Interdiction training activities which often interact with participating contracted commercial vessels homeported out Gulf of Alaska ports (*e.g.,* Kodiak, Homer, etc.).

Conclusion for North Pacific Right Whale BIA—After evaluating the potential training overlap with the North Pacific right whale BIA and the activities expected to result in the take of this species, the endangered status of the species, the extremely small numbers of North Pacific right whales, and the practicability of implementation, NMFS is requiring—and Navy has agreed to—a North Pacific right whale ''Cautionary Area'' between June and September in the overlapping 2,051 km² portion of the North Pacific right whale feeding area (See Figure 3.8–4 of the GOA FSEIS/OEIS), in which the Navy would agree no hull-mounted sonar or explosives would be used within the portion of the feeding area that overlaps the Navy's GOA TMAA during those months. In the event of national security needs, the Navy would be required to seek approval in advance from the Commander, U.S. Third Fleet prior to conducting training activities using sonar or explosives. NMFS believes that implementation of this North Pacific right whale Cautionary Area within the GOA TMAA may provide additional protection of this species and stock beyond the mitigation measures already proposed by the Navy in the proposed rule and GOA FSEIS/OEIS, especially when factoring in their small population size, the status and abundance of the stock (well below its Optimum Sustainable Population (Muto *et al.,* 2016)), and the extremely limited current information about this species. NMFS believes that this additional mitigation measure may contribute to reducing the number of individual North Pacific right whales taken through exposure to MFAS/HFAS or underwater detonations in an area/time that is important for feeding, which could contribute to a reduction in the probability or severity of adverse impacts on the species or stock or their habitat.

Conclusion for Gray Whale BIA—In the case of the gray whale migratory area, given the extremely minimal geographic and temporal overlap with Navy training activities in the GOA TMAA, coupled with the fact that no takes of gray whale are predicted to occur with the proposed level of training effort, NMFS has determined that additional mitigation measures related to time/area limitations of Navy training activities within the overlapping portion of the migratory area would not contribute to any lessening of the likelihood of adverse impacts on the species or stocks or their habitat, and are therefore not warranted in the context of the least practicable impact standard.

Marine Protected Areas

Marine protected areas (MPAs) in the National System of MPAs potentially occurring within the Study Area are listed and described in Section 6.1.2 of the GOA FSEIS/OEIS (Marine Protected Areas, Table 6.1–2). As shown in Figure 6.1–1 of the GOA FSEIS/OEIS very few MPA are located within the GOA TMAA. MPAs vary widely in purpose, level of protection, and restrictions on human uses. As discussed in the GOA FSEIS/OEIS, MPAs in the vicinity of the GOA TMAA generally focus on natural heritage, fishery management, and sustainable production. The GOA FSEIS/OEIS has been prepared in accordance with the requirements to avoid harm to the natural and cultural resources of existing National System MPAs. The identified impacts and purpose for the designation of these areas is to limit or restrict specific fishing activities. Navy activities, should they occur within or near a MPA, would fully abide by the regulations of the individual MPA, including designated fishery management habitat protection areas, and relevant resources (in the case of the GOA TMAA, mainly restrictions on commercial and recreational fishing) (see Table 6.1–2 of the GOA FSEIS/OEIS for more information). Further, NMFS' issuance of an authorization to the Navy to take marine mammals would not conflict with the management, protection, or conservation objectives of these MPAs. Therefore, NMFS has determined that Navy avoidance of these areas is not warranted, nor would it contribute to the least practicable impact standard or any lessening of the likelihood of adverse impacts on species or stocks or their habitat.

Seamounts

As with previous Navy Phase II proposed rulemakings, commenters have requested that the Navy avoid training activities in the vicinity of seamounts or seamount chains, which represent potentially important habitat for marine species. Numerous seamounts are located partially or wholly within the TMAA, including seamount habitat protection areas designated by the North Pacific Fishery Management Council to help maintain productivity of fishery resources. However, NMFS does not believe that Navy avoidance of these areas is warranted, or will contribute to the least practicable impact standard or any lessening of the likelihood of adverse impacts on marine mammal species or stocks for the following reasons:

If marine mammals are known to prefer certain *types* of areas (as opposed to specific areas) for certain functions, such as beaked whale use of seamounts or marine mammal use of other productive areas, it is less effective to require avoidance or limited use of a specific area because marine mammals may or may not be present. NMFS recognizes the generally biologically productive nature of seamounts; however, there are no data to suggest that biologically important or species-specific marine mammal habitat (rookeries, reproductive, feeding) exists along seamounts within the GOA TMAA. While seamounts may represent important habitat for multiple species, the major seamounts located within the TMAA (*e.g.,* Dall, Quinn, and Giacomini seamounts) have been designated by NOAA as Gulf of Alaska Seamount Habitat Protection Areas specifically to help maintain productivity of fisheries resources through restrictions on bottom fishing. Moreover, NMFS' review of the passive acoustic monitoring results in the Navy's annual monitoring reports (2011–2015, available at the Navy's Marine Species Monitoring web portal (*http://www.navymarinespecies monitoring.us/*)) for GOA generally does not suggest significantly greater use of these seamounts by marine mammals (at least for those where high-frequency acoustic recording packages (HARPs) were deployed; it is also important to note that an animal may be located several miles away from where it is detected) compared to other locations (shelf and slope) where detections were recorded. Navy monitoring efforts indicate that beaked whales appear to use both shelf and seamount sites, although detections were generally low at the monitored seamount sites within the TMAA and may be more prevalent at the slope site. During a summer 2013 visual and passive acoustic survey of the entire GOA TMAA, beaked whale passive acoustic detections were just as frequent over deep water abyssal plain areas of the TMAA as compared to slopes and seamounts (Rone *et al.,* 2014). Fin and humpback callings peaked in winter when Navy activities are not proposed to occur. Fin and sperm whale detections were generally more prevalent at shelf and slope sites, respectively, while blue whale calls were detected at all sites. North Pacific right whale calls were last detected in

2013, on the Quinn Seamount site; however, analysis of these detections indicated that the calls were detected from ranges on the order of roughly up to 50 nm to the east of the site; the calling animal was not in the vicinity of Quinn Seamount (Debich *et al.,* 2014; Širović *et al.,* 2014).

The Navy has been training with sonar and other systems for decades in locations having seamounts or slope areas, or that are adjacent to continental shelfs where, to date, there has been no evidence of any long-term consequences for individuals or populations of marine mammals generally or around seamounts. This finding is based on years of research and monitoring that show, for example, higher densities and long-term residency by species such as beaked whales in Southern California, where the Navy trains and tests, than in other adjacent areas (Falcone *et al.,* 2009; Falcone and Schorr, 2012, 2014; Hildebrand and McDonald, 2009). Further, the Navy has identified the need to train in varied bathymetric conditions, including around seamounts specifically, to afford realistic training. Restricting Navy maneuvering or sonar/explosives training in these areas would alter realistic training to a degree that could impede ability to have sufficient sea or air space for the necessary tactical maneuvers.

When the impact on the effectiveness of the training is considered along with the facts described above (*i.e.,* the fact that Navy monitoring has not indicated a strong preference for the GOA TMAA seamounts by marine mammal species, indicating only limited potential to reduce impacts to marine mammal species or stocks and their habitat), we determined that avoidance of seamounts in the GOA TMAA is not warranted in this particular circumstance.

Stranding Response Plan

NMFS and the Navy developed a Stranding Response Plan for GOA TMAA in 2011 as part of the previous (2011–2016) MMPA authorization and rulemaking process for the Study Area. The Stranding Response Plan is specifically intended to outline the applicable requirements in the event that a marine mammal stranding is reported in the complexes during a major training exercise. NMFS considers all plausible causes within the course of a stranding investigation and this plan in no way presumes that any strandings are related to, or caused by, Navy training activities, absent a determination made during investigation. The plan is designed to address mitigation, monitoring, and compliance. NMFS has updated the Stranding Response Plan for the GOA TMAA for 2017–2022 training activities. The updated Stranding Response Plan can be found at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm#navy_goa2021.* In addition, modifications to the Stranding Response Plan may also be made through the adaptive management process.

Mitigation Conclusions

NMFS has carefully evaluated the Navy's proposed mitigation measures—many of which were developed with NMFS' input during the first phase of incidental take authorizations for the Navy's training activities—and considered a broad range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable adverse impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included the manner in which, and the degree to which, the successful implementation of the measure(s) is expected to reduce impacts to marine mammals, marine mammal species or stocks, their habitat, and their availability for subsistence uses (where relevant). Among other things, this analysis considered the nature of the potential adverse impact (likelihood, scope, range), the likelihood that a measure would be effective if implemented, and the likelihood of effective successful implementation. Our evaluation of potential measures also considered the practicability of the measures for applicant implementation. Practicability of implementation includes consideration of such things as cost, impact on operations, and, in the case of a military readiness activity, personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Based on our evaluation of the Navy's proposed measures, as well as other measures considered by NMFS, NMFS has determined that the mitigation measures required by this rule 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.

Monitoring

Section 101(a)(5)(A) of the MMPA states that in order to issue an ITA for an activity, NMFS must set forth ''requirements pertaining to the monitoring and reporting of such taking''. The MMPA implementing regulations at 50 CFR 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.

Integrated Comprehensive Monitoring Program (ICMP)

The Navy's ICMP is intended to coordinate monitoring efforts across all regions and to allocate the most appropriate level and type of effort for each range complex based on a set of standardized objectives, and in acknowledgement of regional expertise and resource availability. The ICMP is designed to be flexible, scalable, and adaptable through the adaptive management and strategic planning processes to periodically assess progress and reevaluate objectives. Although the ICMP does not specify actual monitoring field work or projects, it does establish top-level goals that have been developed in coordination with NMFS. As the ICMP is implemented, detailed and specific studies will be developed which support the Navy's top-level monitoring goals. In essence, the ICMP directs that monitoring activities relating to the effects of Navy training and testing activities on marine species should be designed to contribute towards one or more of the following top-level goals:

- An increase in our understanding of the likely occurrence of marine mammals and/or ESA-listed marine species in the vicinity of the action (*i.e.,* presence, abundance, distribution, and/or density of species);
- An increase in our understanding of the nature, scope, or context of the likely exposure of marine mammals and/or ESA-listed species to any of the potential stressor(s) associated with the action (*e.g.,* tonal and impulsive sound), through better understanding of one or more of the following: (1) The action and the environment in which it occurs (*e.g.,* sound source characterization, propagation, and ambient noise levels); (2) the affected species (*e.g.,* life history or dive patterns); (3) the likely co-occurrence of marine mammals and/or ESA-listed marine species with the action (in whole or part) associated with specific adverse effects; and/or (4) the likely biological or behavioral context of exposure to the stressor for the marine mammal and/or ESA-listed marine species (*e.g.,* age class of exposed animals or known pupping, calving or feeding areas);
- An increase in our understanding of how individual marine mammals or ESA-listed

marine species respond (behaviorally or physiologically) to the specific stressors associated with the action (in specific contexts, where possible, *e.g.,* at what distance or received level);

- An increase in our understanding of how anticipated individual responses, to individual stressors or anticipated combinations of stressors, may impact either: (1) The long-term fitness and survival of an individual; or (2) the population, species, or stock (*e.g.,* through effects on annual rates of recruitment or survival);
- An increase in our understanding of the effectiveness of mitigation and monitoring measures;
- A better understanding and record of the manner in which the authorized entity complies with the ITA and Incidental Take Statement; and
- An increase in the probability of detecting marine mammals (through improved technology or methods), both specifically within the safety zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals.

Monitoring would address the ICMP top-level goals through a collection of specific regional and ocean basin studies based on scientific objectives. Quantitative metrics of monitoring effort (*e.g.,* 20 days of aerial surveys) would not be a specific requirement. The adaptive management process and reporting requirements would serve as the basis for evaluating performance and compliance, primarily considering the quality of the work and results produced, as well as peer review and publications, and public dissemination of information, reports, and data. Details of the ICMP are available online (*http://www.navymarinespecies monitoring.us/*).

Strategic Planning Process for Marine Species Monitoring

The Navy also developed the Strategic Planning Process for Marine Species Monitoring, which establishes the guidelines and processes necessary to develop, evaluate, and fund individual projects based on objective scientific study questions. The process uses an underlying framework designed around top-level goals, a conceptual framework incorporating a progression of knowledge, and in consultation with a Scientific Advisory Group and other regional experts. The Strategic Planning Process for Marine Species Monitoring would be used to set intermediate scientific objectives, identify potential species of interest at a regional scale, and evaluate and select specific monitoring projects to fund or continue supporting for a given fiscal year. This process would also address relative investments to different range complexes based on goals across all range complexes, and monitoring would leverage multiple techniques for data acquisition and analysis whenever possible. The Strategic Planning Process for Marine Species Monitoring is also available online (*http://www.navy marinespeciesmonitoring.us/*).

Past and Current Monitoring in the Study Area

NMFS has received multiple years' worth of annual exercise and monitoring reports addressing active sonar use and explosive detonations within the GOA TMAA and other Navy range complexes. The data and information contained in these reports have been considered in developing mitigation and monitoring measures for the proposed training activities within the Study Area. The Navy's annual exercise and monitoring reports may be viewed at: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm* and *http://www.navymarinespecies monitoring.us.*

This section is a summary of Navy-funded compliance monitoring in the GOA TMAA since 2011. Additional Navy-funded monitoring outside of and in addition to the Navy's commitments to NMFS is provided later in this section.

Gulf of Alaska Study Area Monitoring, 2011–2015—During the LOA development process for the 2011 GOA FEIS/OEIS, the Navy and NMFS agreed that monitoring in the Gulf of Alaska should focus on augmenting existing baseline data, since regional data on species occurrence and density are extremely limited. There have been several reports to date covering work in the Gulf of Alaska (U.S. Department of the Navy, 2011c, 2011d, 2012, 2013f, 2014d, and 2015). Collecting baseline data was deemed a priority prior to focusing on exercise monitoring and behavioral response as is now being done in other Navy OPAREAs and ranges. There have been no previous dedicated monitoring efforts during Navy training activities in the GOA TMAA with the exception of deployed high-frequency acoustic recording packages (HARPs).

In July 2011, the Navy funded deployment of two long-term bottom-mounted passive acoustic monitoring buoys by Scripps Institute of Oceanography (Scripps). These HARPs were deployed southeast of Kenai Peninsula in the GOA TMAA with one on the shelf approximately 50 nm from land (in 111 fathoms (203 m) depth) and on the shelf-break slope approximately 100 nm from land (in 492 fathoms (900 m) depth). Intended to be collected annually, results from the first deployment (July 2011–May 2012) included over 5,756 hours of passive acoustic data (Baumann-Pickering *et al.,* 2012b). Identification of marine mammal sounds included four baleen whale species (blue whales, fin whales, gray whales, and humpback whales) and at least six species of odontocetes (killer whale, sperm whale, Stejneger's beaked whale, Baird's beaked whale, Cuvier's beaked whale, and an unidentified porpoise presumed to be Dall's porpoise; Baumann-Pickering *et al.,* 2012b). Researchers also noted the detection of anthropogenic sound from commercial shipping. There were no Navy activities or vessels in the area at any time during the recording period.

Analysis of the passive acoustic detections made from May 2012 to June 2013 were presented in Baumann-Pickering *et al.* (2013), Debich *et al.* (2013), Debich *et al.* (2014), and the Navy's 2012, 2013, and 2014 GOA TMAA annual monitoring report submitted to NMFS (U.S. Department of the Navy, 2012, 2013f, 2014d). Three baleen whale species were detected: blue whales, fin whales, and humpback whales. No North Pacific right whale calls were detected at either site during this monitoring period. At least seven species of odontocetes were detected: Risso's dolphins, killer whales, sperm whales, Baird's beaked whales, Cuvier's beaked whales, Stejneger's beaked whales, and unidentified porpoises (likely Dall's porpoise). Focused analysis of beaked whale echolocation recordings were presented in Baumann-Pickering *et al.* (2013).

As also presented in Debich *et al.* (2013) and U.S. Department of the Navy (2013f), broadband ship noise was found to be more common at the slope and Pratt Seamount monitoring sites within the GOA TMAA than at the nearshore (on shelf) site. Sonar (a variety of frequencies, most likely fathometers and fish-finders), were more common on the shelf and slope sites. Very few explosions were recorded at any of the sites throughout the monitoring period. Origin of the few explosions detected are unknown, but there was no Navy explosive use in the GOA TMAA during this period, so these explosive-like events may be related to fisheries activity, lightning strikes, or some other unidentified source. There were no detections of Navy mid-frequency sonar use in the recordings (Debich *et al.,* 2013, 2014; U.S. Department of the Navy 2013f, 2014d). In September 2012, an additional HARP buoy was deployed at Pratt Seamount (near the east end of the GOA TMAA) and in June 2013 two additional buoys were deployed in the GOA TMAA: One

at the shelf-break near the southwest corner of the GOA TMAA and one at Quinn Seamount (the approximate middle of the GOA TMAA's southeast boundary). This constitutes a total of five Navy-funded concurrent long-term passive acoustic monitoring packages present in the GOA TMAA through fall of 2014. Debich *et al.* (2013) reported the first detection of a North Pacific right whale at the Quinn Seamount site. Over two days between June and August 2013, the Quinn seamount HARP detected three hours of North Pacific right whale calls (Debich *et al.,* 2014, Širović *et al.,* in press). Given the recording device location near the southwest border of the GOA TMAA, inability of the device as configured to determine call directionality, and likely signal propagation of several 10s of miles, it remains uncertain if the detected calls originated within or outside of the GOA TMAA. Previous related Navy funded monitoring at multiple sites within the Study Area reported no North Pacific right whale detections (Baumann-Pickering *et al.,* 2012b, Debich *et al.,* 2013).

Additional monitoring conducted in the GOA TMAA through spring/summer 2015 included the deployment of five HARPs to detect marine mammals and anthropogenic sounds (Rice *et al.,* 2015), and a passive acoustic sensor-mounted Kongsberg Seaglider™ deployment along the continental slope within the TMAA (marine mammal vocalization and echolocation detections from the Seaglider deployment are still undergoing analysis and the technical report will be posted to the Navy's monitoring Web site: *http://www.navymarinespecies monitoring.us/*). Four baleen whale species were recorded during the HARP deployment: Blue whales, fin whales, gray whales, and humpback whales. No North Pacific right whale calls were recorded. Across all sites, blue whales, fin whales, and humpback whales were commonly detected throughout the recordings, with fin whale detections generally more prevalent at the shelf site. Humpback whales were one of the most commonly detected baleen whales throughout the recordings. Blue whale calls were most prevalent during the summer and fall, while humpback detections were highest from December through March. Fin whale 20 Hz calls were the dominant call type, peaking from September to December, while 40 Hz calls peaked in the summer months. Signals from three known odontocete species were recorded: sperm whales, Cuvier's beaked whales, and Stejneger's beaked whales. Sperm whales were detected at every site, but were most prevalent at the continental slope site, with peak detections from June through late November 2014 and again in April to May 2015. Cuvier's beaked whales were detected in low numbers at the seamount sites. Stejneger's beaked whales were detected at the continental slope site, and the seamount sites, with most detections occurring at the continental slope site. The only anthropogenic sounds detected in the recordings were explosions, which Rice *et al.* (2015) attributed to fishery-related seal bombs based on the spectral properties of the signals.

During review of Rice *et al.* (2015), personnel from NMFS' Alaska Fisheries Science Center questioned if some of the seal bomb-like passive acoustic explosive detections could not have been a variation of a North Pacific right whale ''gunshot'' call. Further explanation was subsequently provided by Scripps: the explosions recorded in the Gulf of Alaska and reported in Rice *et al.* (2015), as well as previous year's reports were broadband, impulsive sounds with a distinctive low frequency rumble. The signal parameters are very similar to seal bomb explosions detect in passive acoustic data from Southern California and the Pacific Northwest. Additionally, Scripps confirmed that from their experience with the detection of seal bombs signals in acoustic data from multiple locations including those outside of Alaska, seal bombs are frequently deployed in a sequence over a period of time, which may be similar to North Pacific right whale bouts. Therefore, Scripps remains confident that the overall patterns and distributions of this signal represent explosives (seal bombs) used in this region and that the likelihood of these explosions being North Pacific right whales is extremely low, even if they cannot absolutely fully discount the possibility that some of their reported explosions may in fact be ''gunshot'' calls.

No mid-frequency active (MFA) sonar events were detected throughout the 2014–2015 HARP recordings. Future monitoring will include varying numbers of HARPs or other passive acoustic technologies based on annual adaptive management and monitoring meeting discussions with NMFS.

In the Gulf of Alaska, the Navy has also funded two previous marine mammal surveys to gather occurrence and density data. Although there was no regulatory requirement for the Navy to undertake either survey, the Navy funded the data collection to first support analysis of potential effects for the 2011 GOA FEIS/OEIS and again recently to support the current GOA SEIS/OEIS. The first Navy-funded survey (GOALS) was conducted by NMFS in April 2009 (see Rone *et al.,* 2009). Line-transect survey visual data was gathered to support distance sampling statistics and acoustic data were collected over a 10-day period both within and outside the GOA TMAA. This survey resulted in sightings of several species and allowed for the derivation of densities for fin and humpback whale that supplemented multiple previous survey efforts in the vicinity (Rone *et al.,* 2009). In summer 2013, the Navy funded an additional visual line-transect survey (Gulf of Alaska Line-Transect Survey (GOALS II)) in the offshore waters of the Gulf of Alaska (Rone *et al.,* 2014). The GOALS II survey was a 30-day visual line-transect survey supplemented by use of passive acoustics and was a follow-on effort to the previously Navy-funded GOALS survey in 2009. The primary objective for the GOALS II survey was to acquire baseline data to increase understanding of the likely occurrence (*i.e.,* presence, abundance, distribution and/or density of species) of beaked whales and ESA-listed marine mammals in the Gulf of Alaska. Specific research objectives were:

- Assess the abundance, spatial distribution and/or density of marine mammals, with a focus on beaked whales and ESA-listed cetacean species through visual line-transect surveys and passive acoustics using a towed hydrophone array and sonobuoys.
- Increase knowledge of species' vocal repertoire by linking visual sightings to vocally active cetaceans, in order to improve the effectiveness of passive acoustic monitoring.
- Attempt to photo-identify and biopsy sample individual whales opportunistically for analysis of population structure, genetics and habitat use.
- Attempt to locate whales for opportunistic satellite tagging using visual and passive acoustic methodology in order to provide information on both large- and fine-scale movements and habitat use of cetaceans.

The Navy-funded GOALS II survey also sampled four distinct habitat areas (shelf, slope, offshore, and seamounts) which were partitioned into four strata. The survey design was intended to provide uniform coverage within the Gulf of Alaska. However, given the overall limited knowledge of beaked whales within the Gulf of Alaska, the survey was also designed to provide coverage of potential beaked whale habitat and resulted in 13 encounters with beaked whales numbering 67 individual animals (Rone *et al.,* 2014). The following additional details are

summarized from the presentation in Rone *et al.* (2014). The visual survey consisted of 4,504 km (2,431 nm) of 'full-effort' and included 349 km (188 nm) of 'transit-effort.' There was an additional 375 km (202 nm) of 'fog-effort' (transect and transit). Based on total effort, there were 802 sightings (1,998 individuals) identified to species, with an additional 162 sightings (228 individuals) of unidentified cetaceans and pinnipeds. Acoustic surveying was conducted round-the-clock with a towed-hydrophone array for 6,304 km (3,997 nm) of line-transect effort totaling 426 hours of 'standard' monitoring, with an additional 374 km (202 nm) of approximately 30 hours of 'non-standard' and 'chase' effort. There were 379 acoustic detections and 267 localizations of 6 identified cetacean species. Additionally, 186 acoustic sonobuoys were deployed with 7 identified cetacean species detected. Two satellite transmitter tags were deployed; a tag on a blue whale (*B. musculus*) transmitted for 9 days and a tag on a Baird's beaked whale (*Berardius bairdii*) transmitted for 15 days. Based on photo-identification matches, the tagged blue whale had been previously identified off Baja California, Mexico, in 2005. Photographs of five cetacean species were collected for photo-identification purposes: Fin, humpback, blue, killer (*Orcinus orca*), and Baird's beaked whales. The estimates of abundance and density for five species were obtained for the first time for the central Gulf of Alaska. Overall, the Navy funded GOALS II survey provided one of the most comprehensive datasets on marine mammal occurrence, abundance, and distribution within that rarely surveyed area (Rone *et al.,* 2014).

Pacific Northwest Cetacean Tagging—A Navy-funded effort in the Pacific Northwest is ongoing and involves attaching long-term satellite tracking tags to migrating gray whales off the coast of Oregon and northern California (U.S. Department of the Navy, 2013e). This study is being conducted by the University of Oregon and has also included tagging of other large whale species such as humpback whales, fin whales, and killer whales when encountered. This effort is not programmed, affiliated, or managed as part of the GOA TMAA monitoring, and is a separate regional project, but has provided information on marine mammals and their movements that has application to the Gulf of Alaska.

In one effort between May 2010 and May 2013, satellite tracking tags were placed on three gray whales, 11 fin whales, five humpback whales, and two killer whales off the Washington coast (Schorr *et al.,* 2013). One tag on an Eastern North Pacific Offshore stock killer whale, in a pod encountered off Washington at Grays Harbor Canyon, remained attached and continued to transmit for approximately three months. In this period, the animal transited a distance of approximately 4,700 nm, which included time spent in the nearshore margins of the TMAA in the Gulf of Alaska where it would be considered part of the Offshore stock (for stock designations, see Muto and Angliss, 2015). In a second effort between 2012 and 2013, tags were attached to 11 Pacific Coast Feeding Group gray whales near Crescent City, California; in general, the tag-reported positions indicated these whales were moving southward at this time of year (Mate, 2013). The Navy's 2013 annual monitoring report for the Northwest Training and Testing Range contains the details of the findings from both research efforts described above (U.S. Department of the Navy, 2013e).

Monitoring for the GOA TMAA Study Area 2017–2022

Based on the NMFS-Navy adaptive management meeting in June 2015 and the annual monitoring meeting in March 2016, future Navy compliance monitoring, including ongoing monitoring, will address ICMP top-level goals through a series of regional and ocean basin study questions with a prioritization and funding focus on species of interest as identified for each range complex. The ICMP will also address relative investments to different range complexes based on goals across all range complexes, and monitoring will leverage multiple techniques for data acquisition and analysis whenever possible.

Within the GOA TMAA Study Area, the Navy's monitoring for GOA TMAA under this LOA authorization and concurrently in other areas of the Pacific Ocean will therefore be structured to address region-specific species-specific study questions in consultation with NMFS. The 2015 annual monitoring report submitted by the Navy to NMFS concludes the Navy's monitoring within the GOA TMAA under the 2011–2016 MMPA authorization. The HARPs used as part of that monitoring effort are currently being retrieved and returned to Scripps Institution of Oceanography for refurbishment. In consultation with NMFS during the June 2015 adaptive management meeting, the Navy and NMFS agreed that Navy-funded monitoring within the GOA TMAA would be revisited during subsequent adaptive management meetings in 2017 and 2018. Given four years of constant 24/7 passive acoustic marine mammal baseline monitoring through the years 2011–2015, scientifically significant ambient background data for a region used infrequently by the Navy has been sufficiently obtained under the 2011–2016 authorization. Therefore, the Navy, with NMFS' concurrence, did not fund GOA TMAA marine mammal monitoring in 2016.

For 2017, Navy will deploy minimum of two bottom-mounted passive acoustic devices with an option for third deep-water buoy passive acoustic device. Devices will be High-frequency acoustic recording packages (HARP) and, for consistency and comparison with past efforts, will be deployed at the same sites as previously. The third planned option consists of a new deep-water open ocean site, on line with the shallower sites, and will include deployment of both a HARP and a new buoy. Scripps will conduct post-deployment of marine mammal vocalizations, ambient sounds and anthropogenic sounds.

Additional Navy monitoring projects proposed during the 2017–2022 GOA TMAA rulemaking period will be posted on the Navy's marine species monitoring Web site (*http://www.navymarinespeciesmonitoring.us/regions/pacific/current-projects/*). NMFS has acknowledged that the Navy's GOA TMAA monitoring will enhance understanding of marine mammal vocalizations and distributions within the offshore waters of the Gulf of Alaska. Additionally, information gained from the Navy's monitoring may be used in the adaptive management of monitoring measures in subsequent NMFS authorizations, if appropriate and in consultation with NMFS. The Navy is committed to structuring the Navy-sponsored research and monitoring program to address both NMFS' regulatory requirements as part of any MMPA authorizations while at the same time making significant contributions to the greater body of marine mammal science (see U.S. Department of the Navy, 2013f).

Ongoing Navy Research

The U.S. Navy is one of the world's leading organizations in assessing the effects of human activities on the marine environment including marine mammals. From 2004 through 2013, the Navy has funded over $240 million specifically for marine mammal research. Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and non-governmental conservation organizations in collecting, evaluating, and modeling information

on marine resources. They also develop approaches to ensure that these resources are minimally impacted by existing and future Navy operations. It is imperative that the Navy's research and development (R&D) efforts related to marine mammals are conducted in an open, transparent manner with validated study needs and requirements. The goal of the Navy's R&D program is to enable collection and publication of scientifically valid research as well as development of techniques and tools for Navy, academic, and commercial use. Historically, R&D programs are funded and developed by the Navy's Chief of Naval Operations Energy and Environmental Readiness Division (OPNAV N45) and Office of Naval Research (ONR), Code 322 Marine Mammals and Biological Oceanography Program. The primary focus of these programs since the 1990s is on understanding the effects of sound on marine mammals, including physiological, behavioral, and ecological effects.

ONR's current Marine Mammals and Biology Program thrusts include, but are not limited to: (1) Monitoring and detection research, (2) integrated ecosystem research including sensor and tag development, (3) effects of sound on marine life (such as hearing, behavioral response studies, physiology (diving and stress), and population consequences of acoustic disturbance (PCAD)), and (4) models and databases for environmental compliance.

To manage some of the Navy's marine mammal research programmatic elements, OPNAV N45 developed in 2011 a new Living Marine Resources (LMR) Research and Development Program (*http://www.lmr.navy.mil/*). The goal of the LMR Research and Development Program is to identify and fill knowledge gaps and to demonstrate, validate, and integrate new processes and technologies to minimize potential effects to marine mammals and other marine resources. Key elements of the LMR program include:

- Providing science-based information to support Navy environmental effects assessments for research, development, acquisition, testing and evaluation as well as Fleet at-sea training, exercises, maintenance, and support activities.
- Improving knowledge of the status and trends of marine species of concern and the ecosystems of which they are a part.
- Developing the scientific basis for the criteria and thresholds to measure the effects of Navy generated sound.
- Improving understanding of underwater sound and sound field characterization unique to assessing the biological consequences resulting from underwater sound (as opposed to tactical applications of underwater sound or propagation loss modeling for military communications or tactical applications).
- Developing technologies and methods to monitor and, where possible, mitigate biologically significant consequences to living marine resources resulting from naval activities, emphasizing those consequences that are most likely to be biologically significant.

Navy Research and Development

Navy Funded—Both the LMR and ONR Research and Development Programs periodically fund projects within the Study Area. Some data and results, when available from these R&D projects, are typically summarized in the Navy's annual range complex Monitoring Reports that are currently submitted to NMFS each year. In addition, the Navy's Range Complex monitoring during training and testing activities is coordinated with the R&D monitoring in a given region to leverage research objectives, assets, and studies where possible under the ICMP.

The integration between the Navy's new LMR Research and Development Program and related range complex monitoring will continue and improve during this LOA application period with applicable results presented in GOA TMAA annual monitoring reports.

Other National Department of Defense Funded Initiatives—Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) are the DoD's environmental research programs, harnessing the latest science and technology to improve environmental performance, reduce costs, and enhance and sustain mission capabilities. The Programs respond to environmental technology requirements that are common to all of the military Services, complementing the Services' research programs. SERDP and ESTCP promote partnerships and collaboration among academia, industry, the military Services, and other Federal agencies. They are independent programs managed from a joint office to coordinate the full spectrum of efforts, from basic and applied research to field demonstration and validation.

Adaptive Management

The final regulations governing the take of marine mammals incidental to Navy training activities in the Study Area contain an adaptive management component, as did previous authorizations. The reporting requirements associated with this final rule are designed to provide NMFS with monitoring data from the previous year to allow NMFS to consider whether any changes are appropriate. NMFS and the Navy would meet to discuss the monitoring reports, Navy R&D developments, and current science and whether mitigation or monitoring modifications are appropriate. The use of adaptive management allows NMFS to consider new information from different sources to determine (with input from the Navy regarding practicability) on an annual or biennial basis if mitigation or monitoring measures should be modified (including additions or deletions). Mitigation measures could be modified if new data suggests that such modifications would have a reasonable likelihood of reducing adverse effects to marine mammal species or stocks and their habitat and if the measures are practicable.

The following are some of the possible sources of applicable data to be considered through the adaptive management process: (1) Results from monitoring and exercises reports, as required by MMPA authorizations; (2) compiled results of Navy funded R&D studies; (3) results from specific stranding investigations; (4) results from general marine mammal and sound research; and (5) any information which reveals that marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOA.

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. NMFS described the proposed Navy reporting requirements in the proposed rule (81 FR 9950, 9991–92; February 26, 2016). Reports from individual monitoring events, results of analyses, publications, and periodic progress reports for specific monitoring projects will be posted to the Navy's Marine Species Monitoring web portal: *http://www.navymarinespeciesmonitoring.us* and NMFS' Web site: *http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm.* There are several different reporting requirements that are further detailed in the regulatory text at the end of this document and summarized below. Of note, a notification requirement for Major Training Exercises that was included in the proposed rule has been modified to be a 72-hour pre-notice, which aligns better with requirements in other training areas and better supports NMFS' management needs.

General Notification of Injured or Dead Marine Mammals

Navy personnel will ensure that NMFS (the appropriate 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 identification or a 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 photographs or video (if available). The Navy shall consult the Stranding Response Plan to obtain more specific reporting requirements for specific circumstances.

Vessel Strike

NMFS has developed the following language to address monitoring and reporting measures specific to vessel strike. Most of this language comes directly from the Stranding Response Plan for other Navy training and testing rulemakings. This section has also been included in the regulatory text at the end of this final rule. Vessel strike during Navy training activities in the Study Area is not anticipated; however, in the event that a Navy vessel strikes a whale, the Navy shall do the following:

Immediately report to NMFS (pursuant to the established Communication Protocol) the:

- Species identification (if known);
- Location (latitude/longitude) of the animal (or location of the strike if the animal has disappeared);
- Whether the animal is alive or dead (or unknown); and
- The time of the strike.

As soon as feasible, the Navy shall report to or provide to NMFS, the:

- Size, length, and description (critical if species is not known) of animal;
- An estimate of the injury status (*e.g.,* dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared, etc.);
- Description of the behavior of the whale during event, immediately after the strike, and following the strike (until the report is made or the animal is no longer sighted);
- Vessel class/type and operational status;
- Vessel length;
- Vessel speed and heading; and
- To the best extent possible, obtain a photo or video of the struck animal, if the animal is still in view.

Within 2 weeks of the strike, provide NMFS:

- A detailed description of the specific actions of the vessel in the 30-minute timeframe immediately preceding the strike, during the event, and immediately after the strike (*e.g.,* the speed and changes in speed, the direction and changes in direction, other maneuvers, sonar use, etc., if not classified); and
- A narrative description of marine mammal sightings during the event and immediately after, and any information as to sightings prior to the strike, if available; and use established Navy shipboard procedures to make a camera available to attempt to capture photographs following a ship strike.

NMFS and the Navy will coordinate to determine the services the Navy may provide to assist NMFS with the investigation of the strike. The response and support activities to be provided by the Navy are dependent on resource availability, must be consistent with military security, and must be logistically feasible without compromising Navy personnel safety. Assistance requested and provided may vary based on distance of strike from shore, the nature of the vessel that hit the whale, available nearby Navy resources, operational and installation commitments, or other factors.

Annual GOA TMAA Monitoring Report

The Navy shall submit an annual report of the GOA TMAA monitoring describing the implementation and results from the previous calendar year. Data collection methods will be standardized across range complexes and study areas to allow for comparison in different geographic locations. Although additional information will be gathered, Navy Lookouts collecting marine mammal data pursuant to the GOA TMAA monitoring plan shall, at a minimum, provide the same marine mammal observation data required in § 218.155. The report shall be submitted either 90 days after the calendar year, or 90 days after the conclusion of the monitoring year to be determined by the adaptive management process. The GOA TMAA Monitoring Report may be provided to NMFS within a larger report that includes the required Monitoring Plan reports from multiple range complexes and study areas (the multi-Range Complex Annual Monitoring Report). Such a report would describe progress of knowledge made with respect to monitoring plan study questions across all Navy ranges associated with the Integrated Comprehensive Monitoring Program. Similar study questions shall be treated together so that progress on each topic shall be summarized across all Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring plan study questions.

Annual GOA TMAA Exercise Report

Each year, the Navy shall submit a preliminary report detailing the status of authorized sound sources within 21 days after the anniversary of the date of issuance of the LOA. Each year, the Navy shall submit a detailed report within 3 months after the anniversary of the date of issuance of the LOA. The annual report shall contain information on Major Training Exercises (MTEs), and a summary of all sound sources used (total hours or quantity (per the LOA) of each bin of sonar or other non-impulsive source; total annual number of each type of explosive exercises; and total annual expended/detonated rounds (missiles, bombs, etc.) for each explosive bin). The analysis in the detailed report will be based on the accumulation of data from the current year's report and data collected from previous reports for the rule. Information included in the classified annual reports may be used to inform future adaptive management of activities within the GOA TMAA.

Sonar Exercise Notification

MTE Prior Notification. The Navy shall submit to NMFS (contact as specified in the LOA and Stranding Plan) an electronic notice of pending MTEs 72 hours prior to the start of the MTE indicating: Location of the exercise, beginning and end dates of the exercise, type of exercise.

Five-Year Close-Out Exercise Report

This report will be included as part of the 2022 annual exercise report. This report will provide the annual totals for each sound source bin with a comparison to the annual allowance and the 5-year total for each sound source bin with a comparison to the 5-year allowance. Additionally, if there were any changes to the sound source allowance, this report will include a discussion of why the change was made and include the analysis to support how the change did or did not result in a change in the SEIS and final rule determinations. The report will be submitted 3 months after the expiration of the rule. NMFS will submit comments on the draft close-out report, if any, 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 provide comments.

Comments and Responses

On February 26, 2016, NMFS published a proposed rule (81 FR 9950) in response to the Navy's request to take marine mammals incidental to training

activities in the GOA TMAA Study Area and requested comments, information, and suggestions concerning the request. During the 30-day public comment period, NMFS received comments from the Marine Mammal Commission (Commission), non-governmental organizations, and private citizens. Numerous comments were collectively submitted in a letter on behalf of the Natural Resources Defense Council (NRDC), Animal Welfare Institute, Center for Biological Diversity, Cetacean Society International, Cook Inletkeeper, Copper River Watershed Project, Defenders of Wildlife, Eyak Preservation Council, Eye of the Whale Research, The Humane Society of the United States, International Fund for Animal Welfare, Oasis Earth, Ocean Conservation Research, OceanCare, Peaceful Skies Coalition, Prince William Soundkeeper, Public Employees for Environmental Responsibility (PEER), Tucson Forward, Inc., West Coast Action Alliance, and Whale and Dolphin Conservation (hereinafter referred to as NRDC *et al.*). Several of NRDC *et al.'*s comments, specifically those related to mitigation recommendations (see Comment 23–49), were the same or similar to comments made on the proposed rule for Navy training and testing in the Northwest Training and Testing (NWTT) Study Area and which were addressed by NMFS in the final rule for NWTT (80 FR 73556, 73575–98; November 24, 2015, Comments and Responses). NMFS also received an online petition, titled ''Stop Sonar and Underwater Explosions in Gulf of Alaska,'' which originated from a non-governmental organization (Eye of the Whale Research) and was circulated by MoveOn.org petitions. The petition contained 58 signatures at the close of the comment period. NMFS has responded to the petition below.

Comments specific to section 101(a)(5)(A) of the MMPA and NMFS' analysis of impacts to marine mammals are summarized, sorted into general topic areas, and addressed below and/or throughout the final rule. Comments specific to the GOA FSEIS/OEIS, which NMFS participated in developing as a cooperating agency and adopted, or that were also submitted to the Navy during the GOA DSEIS/OEIS public comment period are addressed in Appendix D (Public Participation) of the GOA FSEIS/OEIS. Some commenters presented technical comments on the general behavioral risk function that are largely identical to those posed during the comment period for proposed rules for the Atlantic Fleet Training and Testing (AFTT), Hawaii-Southern California Training and Testing (HSTT), Mariana Islands Training and Testing (MITT), and NWTT study areas—Phase II predecessors to the GOA TMAA rule. The behavioral risk function remains unchanged since then, and here we incorporate our responses to those initial technical comments (78 FR 73010, 73038 (December 3, 2013), Acoustic Thresholds; 78 FR 78106, 78129 (December 24, 2013), Acoustic Thresholds; 80 FR 46112, 46146 (August 3, 2015), Criteria and Thresholds; 80 FR 73556, 73579 (November 24, 2015)). Full copies of the comment letters may be accessed at *http://www.regulations.gov*.

General Opposition

Comment 1: The vast majority of comments received by NMFS were from commenters expressing general opposition to Navy training activities in the GOA TMAA and NMFS' issuance of an MMPA authorization. Many commenters claimed that the Navy's activities would result in the ''killing,'' ''blowing up,'' or ''deaths'' of marine mammals during GOA training activities using sonar.

Response: NMFS appreciates the commenters' concern for the marine environment. However, the commenters' assertion that the Navy's activities in the GOA TMAA Study Area will result in the killing or deaths of marine mammals is incorrect. As discussed throughout this rule and in the GOA FSEIS/OEIS, the vast majority of predicted takes are by Level B harassment (behavioral reactions and TTS), and there are no mortality takes predicted or authorized for any training activities in the Study area. Further, any impacts from the Navy's activities are expected to be short term and would not result in significant changes in behavior, growth, survival, annual reproductive success, lifetime reproductive success (fitness), or species recruitment. The Navy has conducted active sonar training activities in the Study Area for years, and there is no evidence that routine Navy training and testing has negatively impacted marine mammal populations in the Study Area or at any Navy Range Complex. As described in more detail later in this document, based on the best available science, NMFS has determined that the Navy's training activities will have a negligible impact on the affected species or stocks and, therefore, we plan to issue the requested MMPA authorization.

Comment 2: An online petition, titled ''Stop Sonar and Underwater Explosions in Gulf of Alaska,'' was created by Eye of the Whale Research and circulated via *MoveOn.org* petitions. The petition is for NMFS' denial of the Navy's LOA application based on sonar and explosives use that could potentially hurt marine mammals in Alaska waters.

Response: The Navy and NMFS are aware that even with implemented mitigations, Navy training in the GOA TMAA Study Area will result in behavioral impacts to a number of marine mammals of multiple species and injurious impacts to a small number of Dall's porpoises, which is precisely why those predicted effects are quantified and have been requested pursuant to the MMPA and ESA. Section 101(a)(5)(A) of the MMPA directs the Secretary of Commerce to allow, upon request, the incidental taking of small numbers of marine mammals if certain findings are made and regulations are issued. NMFS has made the requisite findings and therefore must issue regulations and an LOA for the Navy's activities.

Activity

Comment 3: Several commenters pointed out the importance of salmonid and other fisheries resources in Alaska and expressed concerns with Navy training impacts to commercial, recreational, and subsistence fishing in the Study Area.

Response: Regarding impacts to salmon, fish in general, and the commercial fishers, as presented in Section 3.6 (Fish) and Section 3.12 (Socioeconomics) of the 2011 GOA FEIS/OEIS and the GOA FSEIS/OEIS, NMFS and the Navy are aware of the importance of fisheries in Alaska. The proposed training activities are predicted to have no impact on fish populations, the health of fisheries, or socioeconomic conditions in Alaska.

Regarding concerns over subsistence resources, the proposed action is the continuation of the types of training activities that have been ongoing for more than a decade. No impacts to traditional subsistence practices or resources are predicted to result from the proposed activities. Further, after consultations with Alaska Native tribes from the Kodiak and Kenai Peninsula region, the Navy has confirmed that training events in the TMAA would not involve the use of any explosives in one particular and well-defined fishing area known as Portlock Bank.

Also note that as described in the 2011 GOA FEIS/OEIS, sonar use is unlikely to disturb fish since most fish cannot hear sonar at the frequencies in the proposed action and science indicates that the few fish that can hear in those frequencies have no significant, if any, reaction to sonar. Please also see the GOA FSEIS/OEIS Section 3.8.5 (Summary of Observations During

Previous Navy Activities), where over eight years of monitoring effort has found no evidence that Navy training activities have had any impact on fish populations in the Pacific in areas such as Southern California or Hawaii where Navy training has been occurring year-round for decades.

Additionally, the effects on marine mammal prey species were addressed in the proposed rule and deemed not to be significant and, further, NMFS' biological opinion analyzing the Navy's activities found that they were not likely to jeopardize any listed fish species or destroy or adversely modify any designated critical habitat for ESA-listed fish.

Comment 4: Some commenters expressed concern with potential Navy training impacts to endangered or threatened species within the Study Area.

Response: As discussed in the proposed rule, there are eight marine mammal species under NMFS' jurisdiction that are listed as endangered or threatened under the ESA with confirmed or possible occurrence in the Study Area: Blue whale, fin whale, humpback whale (Mexico DPS and Western North Pacific DPS), sei whale, sperm whale, gray whale (Western North Pacific stock), North Pacific right whale, and Steller sea lion (Western U.S. stock). Pursuant to the MMPA, NMFS found that the take authorized for the Navy's training activities in the GOA TMAA would have a negligible impact on these ESA-listed species. Further, the Navy consulted with NMFS pursuant to section 7 of the ESA, and NMFS also consulted internally on the issuance of a rule and LOA under section 101(a)(5)(A) of the MMPA for GOA activities. NMFS issued a Biological Opinion concluding that the issuance of the rule and subsequent LOA are likely to adversely affect, but are not likely to jeopardize, the continued existence of the threatened and endangered species under NMFS' jurisdiction and are not likely to result in the destruction or adverse modification of critical habitat in the GOA TMAA Study Area. The Biological Opinion for this action is available on NMFS' Web site (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*).

Additionally, we note here that since the publication of the proposed rule, the Navy chose to reduce the proposed amount of activity significantly, lessening the number of the Carrier Strike Group Events from two to one per year, and the number of SINKEXs from two to zero per year. This significantly decreases (by about half) the number of anticipated and authorized takes for this activity.

Comment 5: Several commenters requested that the Navy change the timing of operations from summer (April to October) to winter (November to March), in order to minimize effects on migratory whales and fisheries in the area in summer.

Response: Comments that suggest restricting or scheduling the training so it will occur in the winter provide as partial rationale that the mitigation is needed to avoid whales that migrate to Alaska. Navy training is proposed to occur between April to October for the safety of the exercise participants and due to the severe conditions in the winter months. Due to the high sea states and cloud cover in the TMAA during winter months, training in the TMAA has historically occurred in the summer (June–July). These factors were a consideration in the Alternatives Development of the 2011 GOA FEIS/OEIS (Chapter 2, Section 2.3). As detailed in Section 3.8 (Marine Mammals) of the GOA FSEIS/OEIS, there are marine mammals present year-round in the Gulf of Alaska (*e.g.,* humpback whales, blue whales, fin whales, gray whales, and pinnipeds). Additionally, the majority of the migratory species and many of the species feeding in the area in the summer (*e.g.,* fin whale, humpback whales, gray whales) are typically found in high numbers much closer to shore than in the waters that constitute the majority of the TMAA (see Ferguson *et al.,* 2015; Rone *et al.,* 2014; Witteveen, 2014). Generally, Navy training activities are not likely to affect animals in nearshore locations given that the TMAA boundary nearest to land is approximately 25 nm from the Kenai Peninsula and the center of the TMAA is approximately 140 nm offshore. Any effects to whales in Alaska from Navy training are most likely to result from acoustic sources associated with events occurring in the deep water areas and away from the edges of the TMAA boundary. It is also important to note that the available scientific information does not provide evidence that exposure to acoustic stressors from Navy training activities are likely to impact the fitness of individual whales and are not likely to result in adverse population level or species level impacts. For the reasons outlined above, training in the winter would not be expected to meaningfully reduce impacts to marine mammal species or stocks and their habitat, while it would be impracticable and would unnecessarily increase risk and threaten the safety of Navy personnel engaged in training.

Comments suggesting not holding the training activities during the summer period have also been predicated on avoiding impacts to fisheries during the fishing season and the livelihood of fishermen and fishing communities. As detailed in Section 3.6 (Fish) of the GOA FSEIS/OEIS, based on the best available science, the continuation of training in the GOA TMAA would not have an impact on populations of fish, the health of the fisheries, or the ability of fishermen to fish. It is also important to note that training has been conducted for many years in the GOA TMAA and there have been no reported impacts to any fish populations or fishery activities. Therefore, training in the winter would not be practicable and would not be effective in avoiding impacts to fish or fisheries but would unnecessarily increase risk and threaten the safety of the Navy personnel engaged in training.

NMFS is charged with promulgating regulations and issuing LOAs for the requested activity, provided we find that the authorized take will have a negligible impact on the effected marine mammal species or stock and that we ensure that measures are required that ensure the least practicable adverse impact on the species or stocks and their habitat—which we have. The specific activity that the Navy requested was to conduct these activities for 21 days (initially two times, now lowered to one time) between the months of April and October—requiring them to conduct the exercise outside of these dates is not mitigation within the context of the requested action, but rather asking them to change their requested activity.

Comment 6: NRDC *et al.* commented that NMFS' proposed rule ''green-lights dangerous levels of harm, including population-level harm, to marine mammals in the face of both increased scientific certainty related to the sensitivity of marine mammals to Navy sonar and increased scientific concern regarding the population-level, long-term, and ecosystem effects of Navy sonar on marine mammal species.''

NRDC *et al.* also comment that Navy training activities would subject relatively naïve marine mammal species to sonar and explosives effects. Beaked whales are provided as an example of species that may be particularly at risk, and NRDC *et al.* references well-documented beaked whale stranding events in their assertion that beaked whales may be particularly vulnerable to the effects of active sonar. NRDC *et al.* and other commenters also expressed concern with the potential for overlap between Navy activities within the GOA

TMAA and important feeding areas for endangered North Pacific right whale and migratory and feeding areas for gray whale.

Response: The Navy has been conducting largely the same training activities using the same type of equipment in the GOA TMAA Study Area for over a decade, and has been authorized to use sonar in training events in the Study Area since 2011, without any evidence of harm to marine species as a result of those activities. The activities will occur over the course of no more than 21 days per year. No mortality is anticipated or authorized and only a small number (4) of level A Harassment takes (PTS) are authorized for one species (Dall's porpoise). As described in the GOA FSEIS/OEIS and this final rule, the overwhelming majority of takes predicted for all species are expected to be short-term behavioral responses to relatively short-term activities (Level B harassment). The takes authorized by this rule are less than (*i.e.,* reduced by half with Alternative 1) what was previously authorized for the same training activities that have been occurring for years in the Study Area, and are far less than what is authorized in other Navy training and testing areas (*e.g.,* AFTT, HSTT, NWTT). In particular, see Section 3.8.5 (Summary of Observations During Previous Navy Activities) of the GOA FSEIS/OEIS and the ''Long Term Consequences'' section of this rule regarding the likely long-term consequences from those activities.

NMFS notes that legislative history suggests that Congress intended that Level B harassment be limited to behavioral disturbances that have ''demographic consequences to reproduction or survivability of the species.'' H.R. Conf. Rep. 108–354 (2003), 108th Cong., 1st Sess., *reprinted in* 2004 U.S.C.C.A.N. 1407, 1447. However, no methodology currently exists that would allow the Navy to estimate each type of potential response to sonar, predict any long-term consequences for the affected mammals, and limit its take request to only the most severe responses that would have demographic consequences to reproduction or survivability of the species. Therefore, as described in the ''Analysis and Negligible Impact Determination'' section of this rule, the Navy's take estimates capture a wider range of less significant effects. NMFS considers the available scientific evidence to determine the likely nature of the modeled behavioral responses and the potential fitness consequences for affected individuals in evaluating whether the proposed activities will have a negligible impact on the affected marine mammal species or stocks. As analyzed in the ''Analysis and Negligible Impact Determination'' section of this final rule, the majority of the authorized Level B harassment takes are expected to be in the form of milder responses (*i.e.,* lower-level exposures that still rise to the level of take, but would be less severe in the ranges of responses that qualify as a take), and are not expected to have deleterious impacts on the fitness of any individuals or long-term consequences to populations of marine mammals.

Effects on marine mammals will be minimized through the Navy's implementation of the following mitigation measures (among others): (1) The use of lookouts to monitor for marine mammals and begin powerdown and shutdown of sonar when marine mammals are detected within ranges where the received sound level is likely to result in PTS or other injury; (2) the use of mitigation zones that avoid exposing marine mammals to levels of explosives likely to result in injury or death of marine mammals; (3) vessel maneuvering protocols; and (4) operational restrictions in a North Pacific right whale Cautionary Area. NMFS and the Navy have also worked to develop a robust monitoring plan to improve our understanding of the environmental effects resulting from the use of active sonar and underwater explosives. Additionally, the final rule includes an adaptive management component that allows for timely modification of mitigation or monitoring measures based on new information, when appropriate.

Given the number of commercial and private vessels using sonar for fishing, navigation, and research in the Gulf of Alaska and the Navy's authorized use of sonar in training events since 2011, it is unlikely that there are ''marine mammal populations in the Gulf of Alaska that are naïve to an acoustic stressor,'' especially in the Navy's historically used GOA TMAA.

The facts regarding the beaked whales found stranded in 2004 were presented in the 2011 GOA FEIS/OEIS and are also presented in the referenced technical report accompanying the FSEIS/OEIS. In 2004, between June 27 and July 19, five beaked whales were discovered stranded at various locations along 1,600 mi (2,625 km) of the Alaskan coastline and one was found floating (dead) at sea. Sonar training events had not been part of an exercise which took place in that general timeframe in the TMAA and there are no Navy vessels stationed in Alaska or otherwise using those waters for training purposes. Beaked whale strandings do occur routinely in Alaska waters and NMFS did not consider these strandings unusual or otherwise declare them to be a UME.

Regarding the presence of North Pacific right whale and gray whale and associated biologically important habitat adjacent to, and within, the GOA TMAA, please refer to the ''Consideration of Time/Area Limitations'' section of this rule for a complete discussion and evaluation of the spatio-temporal overlap of Navy activities and important feeding and migratory areas for these species. NMFS' consideration of additional mitigation (time/area closures) in these areas is also discussed in that section, and later in the ''Response to Comments'' section. To summarize, NMFS is requiring a North Pacific right whale ''Cautionary Area'' between June and September in the overlapping 2,051 km^2 portion of the North Pacific right whale feeding area, in which no hull-mounted sonar or explosives would be used within the portion of the feeding area that overlaps the Navy's GOA TMAA during those months, except when required by national security needs. In the event of national security needs, the Navy would be required to seek approval in advance from the Commander, U.S. Third Fleet prior to conducting training activities using sonar or explosives. NMFS believes that implementation of this North Pacific Right Whale Cautionary Area within the GOA TMAA may provide additional protection of this species and stock beyond the mitigation measures already proposed by the Navy. In the case of the gray whale migratory area, given the extremely minimal geographic and temporal overlap with Navy training activities in the GOA TMAA, coupled with the fact that no takes of gray whale are predicted to occur with the proposed level of training effort, NMFS has determined that additional mitigation measures related to time/area limitations of Navy training activities within the overlapping portion of the migratory area would not contribute to any lessening of the likelihood of adverse impacts on the species or stocks or their habitat, and are therefore not warranted in the context of the least practicable impact standard.

Marine Mammal Density Estimates

Comment 7: The Commission recommended that if the Navy requests authorization to conduct training activities from April to October, then it include the appropriate environmental parameters in its acoustic modeling based on those months rather than

assuming the activities would occur only during July.

Response: The factor having the most effect on the modeling is marine mammal density. Detailed information on the Navy's selection protocol, datasets, and specific density values, is presented in Section 3.8.2.5 (Marine Mammal Density Estimates) in the GOA FSEIS/OEIS and the Pacific Navy Marine Species Density Database GOA Technical Report (U.S. Department of the Navy, 2014). In some cases, use of multiple surveys may provide the best density estimates. For example, data from Rone *et al.* (2009), consisting of an April 2009 marine mammal survey conducted by NMFS in the Study Area, was one data source. Another NMFS survey was conducted from June to July 2013 (Rone *et al.,* 2014) and was also incorporated. Data from both surveys were used to derive marine mammal densities and vetted through NMFS subject matter experts. As noted in the Technical Report, density estimates used in the modeling were more heavily influenced by the 2013 survey, where greater effort was conducted over a better representative stratified area (Rone *et al.,* 2014). More sightings of more species were obtained in the June–July 2013 survey verses the April 2009 survey. NMFS or other academic agencies have not done extensive surveys within the Study Area at other times of the year and monthly or sub-season sighting data are not available for the entire suite of marine mammal species potentially present. The data provided for GOA modeling are the best available density estimates and sufficiently representative for the summer period.

Because the proposed training (Northern Edge) has historically occurred in the May to July timeframe, the proposed training in the GOA TMAA is different from other Navy range complexes such as the Northwest Training and Testing Range Complex, where there is year-round unit level training. Therefore, a seasonal analysis is called for in modeling activities in the GOA TMAA; modeling for GOA was not done for year-round continuous activity because the Navy's training activities do not occur year-round in the GOA TMAA. To provide for future flexibility if needed, the GOA FSEIS/OEIS indicated that the proposed activities could occur during the summer months (April–October); however, they are most likely to occur in the May–July timeframe. Overall, any monthly differences in marine mammal densities from July to October is likely to be very similar to the July data used for density derivation in the GOA analysis. Five years (2011–2015) of year-round Navy funded passive acoustic monitoring in GOA found higher likelihood for more species, including ESA listed marine mammals, in mid-summer to late summer (July–October) as compared to early summer (May–June). Therefore, the current density estimates used for the GOA FSEIS/OEIS are equivalent for species abundance in the July to October timeframe, and likely over predictive for the more probably time in which an actual Northern Edge exercise would be expected to occur (May–July).

The use of these densities is scientifically valid, representative of expected densities for all species over the proposed date range, and based on the best available science. Monthly seasonal densities are not available for the Study Area, and even if they were, they would not likely change any of the conclusions in the FSEIS/OEIS or this final rule.

Comment 8: The Commission stated that it was unsure how the Navy determined that extrapolated densities better represent expected densities than densities from relevant environmental suitability (RES) models in the absence of density data. The Commission recommended that NMFS require the Navy to (1) account for uncertainty in extrapolated density estimates for all species by using the upper limit of the 95 percent confidence interval or the arithmetic mean plus two standard deviations and (2) then re-estimate the numbers of takes accordingly.

Response: The Navy coordinated with scientists at the Northwest Fisheries Science Center (NWFSC) and the National Marine Mammal Laboratory (NMML) to help identify the best available density estimates for marine mammals occurring in the Study Area. As the commenter points out, there is uncertainty in estimating marine mammal densities, and for some species very little data are available. See the previous comment response for an explanation of why the density data collected in July (Rone *et al.,* 2014) is scientifically valid, representative of expected densities for all species over the proposed date range, and based on the best available science.

Using the mean value to estimate densities is a reasonable and scientifically acceptable approach. While the mean may underestimate a species' density, by definition, it is equally probable that it could overestimate a species' density. The mean density estimate is the best value to use as input into the Navy's acoustic effects model to minimize the influence of uncertainty inherent in the science. Also, the future application of this survey data as representative for year-round densities has no bearing on the GOA FSEIS/OEIS, because the proposed action does not occur year-round. Furthermore, the use of the mean density estimate is consistent with the approach taken by NMFS to estimate and report the populations of marine mammals in NMFS' Stock Assessment Reports. For these reasons, the mean density estimate is thus considered the ''best available data.''

Using the upper limit of the 95 percent confidence interval or adjusting the mean estimates as suggested would result in unreasonable and unrealistic estimates of species densities, particularly given the very high coefficients of variation (CVs) associated with most marine mammal density estimates. A confidence interval is only meant to be an indication of the uncertainty associated with a point estimate, and should not be used to derive any absolute number within the confidence interval. Using the upper limit of the range as an input would do nothing to decrease the level of uncertainty. Implementing the recommendation would result in an unrepresentative overestimate of the expected effects (takes) from the proposed action. Further, as detailed in Section 3.8.3.1.6.3 (Navy Acoustic Effects Model) of the GOA FSEIS/OEIS, the Navy's acoustic model already includes conservative assumptions (*e.g.,* assumes that the animals do not move horizontally, assumes they are always head-on to the sound source so that they receive the maximum amount of energy, etc.), resulting in a more conservative (*i.e.,* greater) assessment of potential impacts.

Comment 9: The Commission commented that the Rone *et al.* (2014) data used by the Navy to estimate densities of northern fur seals likely under-represent densities for the summer timeframe in which training activities are likely to occur. The Commission believes that the densities would be underestimated even if the Navy incorporated the CVs from the Rone *et al.* (2014) data.

Response: The Navy consulted with scientists from the NWFSC and NMML to help identify the best available density estimates for marine mammals occurring in the Study Area. The timeframe for when the activities have historically occurred, and for when they would be expected to occur predominantly over the course of the rule, are well represented by the June to July timeframe. Data collected from Rone *et al.* (2014) in the summer of 2014 resulting in 69 on-effort northern fur seal sightings (74 individuals) in the

Study Area is representative of the presence of northern fur seals in the Study Area. The Rone *et al.* (2014) survey occurred in approximately the same month when previous Navy training events have occurred and are most likely to occur in the future. The Rone *et al.* (2014) data is therefore the most representative for use in the assessment of impacts. As noted in the GOA FSEIS/OEIS, tagging data presented by Ream *et al.* (2005) indicate the main foraging areas and the main migration route through the Gulf of Alaska are located far to the west of the Study Area, so the movement of animals involving the larger expanse of the Gulf of Alaska at other times of the year and outside the Study Area are not relevant.

Further, we note that although modeled take estimates are our best attempt at quantifying the impacts of the proposed action, they do not represent the entirety of our analysis. For the Gulf of Alaska specifically, we have described elsewhere the context and nature of the anticipated impacts on marine mammals, which are expected to be of short duration and a comparatively small degree—meaning that a small number of additional Level B harassment takes would not be expected to change our assessment of the effects on the population.

Comment 10: The Commission recommended that NMFS require the Navy to (1) revise its Steller sea lion abundance estimate to include updated abundance data from Allen and Angliss (2015) (the Navy used abundance data from Allen and Angliss (2009) to estimate Steller sea lion densities) and consult with scientists at NMML regarding unpublished data to revise its Steller sea lion densities, and (2) revise its northern elephant seal abundance estimate to include both updated abundance data from Allen and Angliss (2015) and data for female elephant seals and incorporate data from Robinson *et al.* (2012) into its estimates of northern elephant seal densities.

Response: We note, first, that Allen and Angliss (2015) was published approximately a year after GOA densities were derived and modeled for the GOA SEIS/OEIS. Prior to that, the Navy coordinated with scientists at NMML to help identify the best available density estimates for marine mammals occurring in the Study Area at the beginning of the density derivation process. For Steller sea lions, rookeries on both sides of the 144 °W longitude line dividing the two stocks (DPSs) were used in the estimate of density, with Allen and Angliss (2009) and associated references consulted. The abundance increase in the Stock Assessment Report (Allen and Angliss, 2015) is a trend characterizing the 12-year period between 2000 and 2012. The most recent Alaska Stock Assessment Report (Muto *et al.,* 2016, which cites Johnson and Fritz 2014, Fritz *et al.,* 2015) continued the trend analysis to 2014. While Muto *et al.* (2016) and associated references allude to a small percent increase in some regional Steller sea lion abundances after the date range used by the Navy for GOA densities, the increases are relatively small and also subject to variation by region. Furthermore, given the way modeling occurs in NAEMO, slight increases to density for a species do not always lead to corresponding linear increase in modeled takes because there are other statistical factors of the model as well (see Navy's Acoustic Effects 2015 Technical Report).

As currently modeled, the estimated takes of the two DPSs of Steller sea lions are relatively small compared to estimated takes for other species under Alternative 1 (*i.e.,* a total of 621 takes for the two Steller sea lion DPSs). The potential addition of a small number of additional Level B harassment takes based on small density changes would not be significant. Modeled take estimates are our best attempt at quantifying the impacts of the proposed action, but they do not represent the entirety of our analysis. For the Gulf of Alaska specifically, we have described elsewhere the context and nature of the anticipated impacts on marine mammals, which are expected to be of short duration and a comparatively small degree—meaning that a small number of additional Level B harassment takes would not be expected to change our assessment of the effects on the population.

For elephant seals, the text presented in the GOA FSEIS/OEIS does not indicate absolute geographic presence or absence of elephant seals, but is presented as a generalization based on findings presented in the three references cited (Le Boeuf *et al.,* 2000; Stewart and DeLong, 1995; and Stewart and Huber, 1993). Tag data from Robinson *et al.* (2012) was considered in the analysis and clearly shows that the females mostly range east to about 173 °W, between the latitudes of 40 °N and 45 °N, consistent with the presentation in the GOA FSEIS/OEIS. The kernel density distribution presented by Robinson *et al.* (2012) confirms most of the tagged elephant seals foraged outside of the Study Area. Furthermore, Robinson *et al.* (2012) provides density only in relative terms of high or low, and not with the statistical calculations needed to derive exact at-sea densities as required by NMFS. By and large, the presence of elephant seals in the Study Area would likely be limited and transitory. The derived density of elephant seals in the Study Area as explained in the Navy's density technical report therefore remains a conservative over-estimate for purposes of acoustic effect modeling.

Criteria and Thresholds

Comment 11: The Commission recommended that NMFS require the Navy to update Finneran and Jenkins (2012) to include the appropriate justification for its use of the 6-dB extrapolation factor between explosive and acoustic sources; use 151 dB rather than 152 dB re 1 μPa2-sec as the TTS threshold for high-frequency cetaceans exposed to acoustic sources; use 145 dB rather than 146 dB re 1 μPa2-sec as the TTS threshold for high-frequency cetaceans for explosive sources; and based on these changes to the TTS thresholds, adjust the PTS thresholds for high-frequency cetaceans by increasing the amended TTS threshold by 20 dB for acoustic sources and 15 dB for explosive sources, and adjust the behavioral thresholds by decreasing the amended TTS thresholds by 5 dB for explosive sources.

Response: NMFS participated in the development of the acoustic thresholds used in the FSEIS/OEIS. As detailed in Finneran and Jenkins (2012), the thresholds presented in the FSEIS/OEIS incorporate new findings since the publication of Southall *et al.* (2007) and the evolution of scientific understanding since that time. Dr. Finneran was one of the authors for Southall *et al.* (2007) and, as such, is familiar with the older conclusions present in the 2007 publication and therefore was able to integrate that knowledge into the development of the refined approach that was presented in Finneran and Jenkins (2012) and based on evolving science since 2007. Details regarding the process are provided in Section 3.8.3.1.6 (Quantitative Analysis) of the GOA FSEIS/OEIS. Also, see the summary of the thresholds used in the analysis as presented in Section 3.8.3.1.4 (Thresholds and Criteria for Predicting Acoustic and Explosive Impacts on Marine Mammals).

Briefly, the original experimental data is weighted using the prescribed weighting function to determine the numerical threshold value. The Commission did not consider the appropriate weighting schemes when comparing thresholds presented in Southall *et al.* (2007) and those presented in Finneran and Jenkins (2012). TTS thresholds presented in

Finneran and Jenkins (2012) are appropriate when the applicable weighting function (Type II) is applied to the original TTS data; TTS thresholds in Southall *et al.* (2007) were based on M-weighting. For example, while it is true that there is an unweighted 12-dB difference for onset-TTS between beluga watergun (Finneran *et al.,* 2002) and tonal exposures (Schlundt *et al.,* 2000), the difference after weighting with the Type II MF-cet weighting function (from Finneran and Jenkins, 2012) is 6 dB. The Commission has confused (a) the 6 dB difference in PTS and TTS thresholds based on peak pressure described in Southall *et al.,* 2007 with (b) the difference between impulsive and non-impulsive thresholds in Finneran and Jenkins (2012), which is coincidentally 6 dB. In summary, the values derived for impulsive and non-impulsive TTS and for determining PTS and impulsive behavior thresholds from TTS thresholds are correct based on the data presented.

More importantly, the Navy and NMFS have continued to revise acoustic thresholds based on emergent research. In August 2016, NOAA released its *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing,* which established new thresholds for predicting auditory injury (*i.e.,* PTS). In developing the new Guidance, NMFS compiled, interpreted, and synthesized scientific information currently available on the effects of anthropogenic sound on marine mammals, including a recent Technical Report by Dr. James Finneran (U.S. Navy-SPAWAR Systems Center Pacific) that proposed new weighting functions and thresholds for predicting the onset of both PTS and TTS in marine mammals (Finneran, 2016). The methodologies presented within this paper build upon the methodologies used to develop the criteria applied within the proposed rule and Navy's GOA FSEIS/OEIS (Finneran and Jenkins, 2012), and incorporate relevant auditory research made available since 2012 (*e.g.,* Kastelein *et al.,* 2012a; Kastelein *et al.,* 2012b; Finneran and Schlundt, 2013; Kastelein *et al.,* 2013a; Kastelein *et al.,* 2013b; Popov *et al.,* 2013; Kastelein *et al.,* 2014a; Kastelein *et al.,* 2014b; Popov *et al.,* 2014; Finneran *et al.,* 2015; Kastelein *et al.,* 2015a; Kastelein *et al.,* 2015b; Popov *et al.,* 2015). In light of limited data at the time, Finneran and Jenkins (2012) presented a conservative approach to development of auditory weighting functions. In 2016, with the benefit of newly-available data, Finneran was able to synthesize a wide range of auditory data, including newly-available studies, to predict refined auditory weighting functions and corresponding TTS thresholds across the complete hearing ranges of functional hearing groups.

The specific recommendations made by the Commission in its comments on the proposed rule were overcome by events when Finneran (2016) was published and adopted by NMFS in its new Guidance. All the methods used for synthesizing and interpreting new data sets into thresholds data were shared with the public and all comments were addressed prior to finalizing the Guidance. NMFS' new Guidance uses 153 dB for TTS for HF species from non-impulsive sources (1 dB less conservative than Finneran (2012) and 2 dB less conservative than the Commission recommended) and uses 140 dB for TTS for HF species from impulsive sources (6 dB more conservative than Finneran (2012) and 5 dB more conservative than the Commission recommends). Further, as recommended, 20 dB was added to the TTS value to get the PTS value for the non-impulsive sources, and 15 dB was added for the explosive source threshold.

At the time of the release of the proposed rule and GOA FSEIS/OEIS, NMFS' final Guidance had not been issued. Further, the new criteria were not available for the Navy's acoustic effects modeling used to calculate distances to harassment thresholds and resulting take estimates. Therefore, the Navy did not use the new auditory weighting functions and PTS/TTS criteria in its GOA FSEIS/OEIS. However, the underlying science contained within Finneran (2016) has been addressed qualitatively within the applicable sections of the GOA FSEIS/OEIS and this final rulemaking. Further, although the writers of the base code for the model used for Phase II were not available to recode the model with the updated impulsive criteria in terms of weighting functions, the Navy was able to use the model to reprocess anticipated explosive ranges to effects for PTS based on the criteria presented in the new Guidance, from which TTS and behavioral exposures could be estimated, to assess if the new criteria could result in any additional species-specific injury exposures. For more information on this analysis, see the ''Summary of Request'' section in this final rule.

Comment 12: NRDC *et al.* commented that the Navy and NMFS failed to set proper thresholds for threshold shift and injury. They assert the following as reasons, referencing several articles, for their belief that the thresholds are improper: First, NMFS' direct extrapolation of data from bottlenose dolphins and belugas to low-frequency cetaceans is not justifiable and insufficiently conservative. Second, NMFS makes no attempt to account for the potential bias in Space and Naval Warfare Systems Command's (SPAWAR) bottlenose dolphin data, particularly the age of the subjects used in these influential studies and their situation for years within a noisy bay. Third, NMFS' weighting curve for high-frequency cetaceans is not sufficiently conservative in light of ongoing studies, as by Ron Kastelein. Fourth, NMFS' analysis fails to incorporate empirical data on both humans and marine mammals indicating that PTS can occur at levels previously thought to cause temporary threshold shift only.

Response: NMFS disagrees. The criteria and thresholds for determining potential effects on marine species used in the GOA FSEIS/OEIS, the LOA application, and the proposed rule were developed based on best available science. See the cited Finneran and Jenkins (2012; Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis Technical Report), which can be found at *http://www.goaeis.com.* Moreover, as described previously, the thresholds outlined in Finneran and Jenkins (2012) (and used in the GOA FSEIS/OEIS) were updated with new data in Finneran (2016), which was adopted by NMFS for use in its new Guidance, following an opportunity for public comment in which NMFS addressed all comments on data and methods (including points that are raised here, such as the reference to Wright (2015)).

As described in the ''Summary of Request'' section of this rule, NMFS and the Navy assessed the training activities in the GOA TMAA in the context of the new Guidance and all of the associated new data that support it (see previous comment response) and made changes to the take estimates where appropriate. As described, although most thresholds changed a little in one direction or the other (including going down for LF and HF species by 4 and 6 dB, respectively, for explosives), and the weighting functions for all taxa changed, when considered together and in the context of the proposed activities, the changes in the take estimates were relatively small (increasing takes only for Dall's porpoise, by 3 Level A and 149 Level B harassments). In short, much of this comment has been overcome by events, but nonetheless, we address some of the details below. Although the commenter is not specifically commenting on it

here, we note that some similar issues were raised in the context of the new 2016 Acoustic Guidance, and NMFS responded to those concerns in our **Federal Register** notice announcing the finalization of the Guidance (81 FR 51693; August 4, 2016; *https://www.federalregister.gov/documents/2016/08/04/2016–18462/technical-guidance-for-assessing-the-effects-of-anthropogenic-sound-on-marine-mammal*).

Regarding the commenters' first point, NMFS disagrees that the thresholds are unjustified and insufficiently conservative. The discussion presented in the GOA FSEIS/OEIS Section 3.8.2.3.3 (Low-Frequency Cetaceans) and Section 3.8.3.1.11 (Frequency Weighting) describes the derivation of the thresholds and criteria for low frequency cetaceans that were used in take calculations in the proposed rule. Specifically, it was the low- and high-frequency cetacean weighting functions (see Southall *et al.,* 2007) that were extrapolated from the dolphin data because of the suspected similarities of greatest susceptibility at best frequencies of hearing consistent with the best available science. The Navy used experimentally derived mid-frequency cetacean thresholds to assess PTS and TTS for low-frequency cetaceans, since mid-frequency cetaceans are the most similar to the low frequency group (see Southall *et al.,* 2007; Finneran and Jenkins, 2012). Although the mid-frequency criteria and thresholds are applied to low frequency cetaceans, exposures and threshold sound exposure levels are weighted using the low frequency cetacean weighting function rather than the mid-frequency, which provides higher susceptibility to low frequency sound, consistent with their inferred frequencies of best hearing. Data for low frequency cetaceans considered in the analysis also includes that from Ketten (2014) for blue whales and minke whales, Ketten and Mountain (2014) for humpback whales, and Cranford and Krysl (2015) for fin whales. Observed vocalization frequencies, observed reactions to playback of sounds, anatomical analyses of the auditory system (Cranford and Krysl, 2015; Houser *et al.,* 2001; Ketten, 2014; Ketten and Mountain, 2014; Parks *et al.,* 2007), and a general understanding of mammalian hearing are the reasons and science behind why the methodology in the GOA FSEIS/OEIS and the proposed rule is justifiable. NMFS disagrees that the approach was not conservative given that low frequency cetaceans do not echolocate and that the physiology of mysticetes indicates a lack of sensitivity to high frequency sound.

NMFS disagrees with the commenters' second point, as the data used in the Navy's and NMFS' analyses included many animals and species at multiple experimental facilities around the world as well as auditory measurements on wild animals that had stranded, in addition to anatomical analyses of the auditory system of mysticetes (Cranford and Krysl, 2015; Houser *et al.,* 2001; Ketten, 2014; Ketten and Mountain, 2014; Parks *et al.,* 2007). Direct measurement of hearing sensitivity exists for approximately 25 species of marine mammals, including the following cetacean species: Atlantic white-sided dolphins (Houser *et al.,* 2010a), common dolphins (Houser, Dankiewicz-Talmadge *et al.,* 2010), Atlantic bottlenose dolphins (Johnson, 1967), Indo-Pacific bottlenose dolphins (Houseret *et al.,* 2010a), Black Sea bottlenose dolphins (Popov *et al.,* 2007), striped dolphins (Kastelein *et al.,* 2003), white-beaked dolphins (Nachtigall *et al.,* 2008), Risso's dolphins (Nachtigall *et al.,* 2005), belugas (Finneran *et al.,* 2005; White *et al.,* 1977), long-finned pilot whales (Pacini *et al.,* 2010), false killer whales (Yuen *et al.,* 2005), killer whales (Szymanski *et al.,* 1999), Gervais' beaked whales (Finneran *et al.,* 2009), and Blainville's beaked whales (Pacini *et al.,* 2011).

Regarding the commenters' third point, the most recent publications by Dr. Kastelein are cited and were considered in the analysis presented in the GOA FSEIS/OEIS (see Kastelein *et al.,* 2014a, 2014b, 2015). In reference to the most recent publication involving non-pulse sources (sonar) from Kastelein *et al.* (2015), the authors found that the threshold shift criteria proposed by Southall *et al.* (2007) for cetaceans echolocating at high frequency (SEL 215 dB re 1 lPa2s) was too high for the harbor porpoise when considering high duty cycle sonars. Kastelein *et al.* (2015) documented fatiguing sounds at duty cycles of 10 percent (one sonar ping every 10 seconds) and 100 percent (one ping immediately followed by another). The high duty cycle sonar used in Kastelein's study were a different frequency (6–7 kHz) and produce sound at a higher rate than the Navy's hull-mounted mid-frequency anti-submarine sonar, which nominally produces one ping every 45 seconds. Therefore, the Kastelein (2015) study and its findings do not relate to the Navy's proposed action or the sonar sources proposed for use in the GOA TMAA Study Area.

Additionally, TTS represents a physiological metric for a behavioral reaction and an exposure resulting in TTS has been and is considered an MMPA Level B harassment take. As presented in Section 3.8.3.1.5 (Sonar and Other Active Acoustic Sources, Subsection *Harbor Porpoises*) of the GOA FSEIS/OEIS, the Navy and NMFS are aware of the sensitivity of harbor porpoises and have established a sound pressure level of 120 dB re 1 µPa as a threshold for predicting behavioral responses in harbor porpoises and Level B harassment takes pursuant to the MMPA.

The reference to Tougaard *et al.* (2014) cited by the commenters has been considered in the GOA FSEIS/OEIS. The point raised in that reference was that the Southall *et al.* (2007) weighting functions need updating given there have been new studies that have since become available. The Navy's analysis is in fact based on an update to Southall *et al.* (2007) as detailed in Finneran and Jenkins (2012). In the opinion of the authors, the net result from revisions to the weighting functions like that used by the Navy (Finneran and Jenkins, 2012) is that they are not guaranteed to be conservative enough specifically with regard to sound sources such as pile driving, ''seal scarers,'' and high-frequency pingers. With the exception of high frequency pingers, these sources are not part of the Navy's proposed action. As detailed in Section 3.8.3.1.2.3 (Hearing Loss; see reference to Finneran (2015)) in the GOA FSEIS/OEIS, the Navy and NMFS are in the process of reviewing the latest and best available science to further refine future acoustic analyses using weighting functions.

Regarding the commenters' fourth point, NMFS and the Navy have incorporated empirical data on humans (see the GOA FSEIS/OEIS citations to Ward *et al.,* 1958, 1959a, b; and Miller *et al.,* 1963).

With regard to the references cited by the commenters: Kastak *et al.* (2008) reported PTS in a harbor seal after an exposure of 202 dB SEL at 4.1 kHz. This exposure level is 5 dB above the PTS onset criteria used by the Navy in its Phase II modeling, and thus the Navy would have predicted PTS for this exposure. The Kastak *et al.* (2008) data are therefore consistent with the criteria and thresholds used by the Navy (as described in the FSEIS/OEIS). Kujawa and Liberman (2009) reported TTS in mice of 40 dB measured 24 hours after exposure. Thresholds were found to recover completely (thus there was no PTS) but other signs of auditory damage were found, such as neural degeneration and a decrease in suprathreshold evoked response amplitudes. A similar study by Lin *et al.* (2011) with guinea

pigs found similar results after TTS of greater than 50 dB measured 24 hours after exposure. Since no lower level exposures were utilized, it is not known if the suite of auditory damage observed by Kujawa and Liberman (2009) and Lin *et al.* (2011) would have occurred with lesser exposures. The Navy's analyses assumed PTS (and thus injury) would occur after exposures producing TTS of 40 dB or more measured approximately 4 minutes after exposure. Therefore, the exposures used by Kujawa and Liberman (2009) and Lin *et al.* (2011) would have been considered injurious by the Navy criteria. Therefore, both the Kastak *et al.* (2008) and Kujawa and Liberman (2009) studies are consistent with the Navy's use of TTS of 40 dB, measured approximately 4 minutes after exposure, as an indicator for auditory injury.

Comment 13: NRDC *et al.* provided several comments, which were originally set forth in a detailed critique by Dr. David Bain, that were critical of the acoustic risk function used by the Navy and NMFS to estimate the probability of behavioral effects that NMFS would classify as harassment. The commenters assert that these risk functions are flawed and underestimate take.

Response: Dr. Bain's critique is not directly relevant to the proposed action in the GOA TMAA Study Area. It is in reference to older Navy EISs (2007 Hawaii Range Complex (HRC) Navy DEIS/OEIS; 2006 Undersea Warfare Training Range (USWTR) DEIS/OEIS) that analyze different actions in another geographic location, and is no longer current as the science has evolved over the last nine years. The criteria and thresholds for determining potential effects on marine species used in the Navy's GOA FSEIS/OEIS and related consultation documents have been appropriately revised based on the best available science since the 2006 and 2007 Draft EISs, which Dr. Bain reviewed (see Finneran and Jenkins, 2012). Dr. Bain's critique is therefore dated and not directly relevant to the proposed rule or the Navy's analysis for the GOA TMAA Study Area as presented in the GOA FSEIS/OEIS. Please also note that all comments from Dr. Bain's critique were previously responded to in the 2009 Hawaii Range Complex FEIS/OEIS and in more recent Navy FEIS/OEISs. Particular aspects of Dr. Bain's critique highlighted by the commenters are discussed in Comments and Responses 14 through 18.

Comment 14: NRDC *et al.* commented that NMFS and the Navy rely on studies of temporary threshold shift in captive animals for one of their primary sources of data for the development of behavioral thresholds.

Response: As described in the FSEIS/OEIS section 3.8.3.1.5, the captive behavioral data gathered while conducting TTS studies is one of three data sources used to inform the behavioral response function generated to predict takes by Level B harassment—the other two studies are based on observations in the wild of killer whales and North Atlantic right whales. In order to generate a quantitative curve to predict behavioral responses, very specific information is needed regarding what levels of sound were received that are associated with the specific behavioral changes observed. While not appropriate to use to the exclusion of wild data, captive studies provide valuable insight into behavioral response and support the types of precise acoustic measurements that are necessary for generating behavioral response functions. Comparatively few field studies documenting marine mammal responses to MFAS include the specificity of data needed to appropriately inform a quantitative curve. Some field studies with informative results have been conducted subsequent to the generation of the behavioral response function used here to estimate take, and these studies have been assessed qualitatively in our analysis and NMFS and Navy have determined that the behavioral response curve used here still represents a reasonable mechanism for estimating behavioral responses that rise to the level of take given the body of science available at this time.

Comment 15: NRDC *et al.* commented that NMFS and the Navy appear to have misused data garnered from the Haro Strait incident by including only those levels of sound received by the ''J'' pod of killer whales when the USS Shoup was at its closest approach. They further request the Navy's propagation analysis for the Haro Strait event.

Response: Details of the analysis of the Haro Strait event were presented in the GOA FSEIS/OEIS Section 3.8.3.1.2.6 (Behavioral Reactions to Sonar and Other Active Acoustic Sources; Subsection *Odontocetes*). The propagation analysis is available from the Navy upon request. The Navy and NMFS reviewed testimony, video, and all field notes from the time of the event, and have accurately used that documented data in the analysis for the GOA activities and the Navy addressed this identical comment in more detail in its response to comments on the Hawaii Range Complex in 2007. That data clearly indicated that the behaviors observed were within the species' normal range of behaviors and there were no immediate or general overt negative behavioral reactions observed at the time of the exposure. Furthermore, the presence of numerous small motor vessels maneuvering in close proximity to the orca further complicated the assessment of possible reactions related to sonar from a vessel and, specifically, the agencies determined that it was most appropriate to use the received levels at the closest approach of the USS Shoup because the effects when the whales were farther from the Shoup could not be deconflicted from the effects of the nearby whale-watching boats.

Comment 16: NRDC *et al.* commented that NMFS and the Navy exclude a substantial body of controlled exposure research and opportunistic studies on wild animals (and some research on other experimental animals as well, within a behavioral experimental protocol). For example, NMFS and the Navy fail to include data from the July 2004 Hanalei Bay event, in which 150–200 melon-headed whales were embayed for more than 24 hours during the Navy's Rim of the Pacific exercise.

Response: NMFS disagrees. The studies cited by the commenters are cited in the proposed rule and in the GOA FSEIS/OEIS and were fully considered in the analysis. Section 3.4 of the GOA FSEIS/OEIS contains citations to additional controlled exposure research on wild animals including, for example, DeRuiter *et al.* (2013a, b), Defence Science and Technology Laboratory (2007); Claridge and Durban (2009); McCarthy *et al.* (2011); Melcon *et al.,* 2012); Miller *et al.* (2011, 2012); Moretti *et al.* (2009); Southhall *et al.* (2011, 2012a, 2012b, 2013, 2014); Stimpert *et al.* (2014); and Tyack *et al.* (2011). As noted previously, not all studies contain the level of detailed data to be quantitatively incorporated into a behavioral response curve, and some of these studies occurred after the Navy began its modeling. However, all of the referenced studies have been considered qualitatively in the agency's analyses and our impact analyses and determinations are supported by the body of science on this topic.

Regarding the Hanalei Bay event, NMFS included an extensive analysis of this event in the ''Stranding and Mortality'' section of the proposed rule (81 FR 9950, 9970–76; February 26, 2016). Please see that section for further information regarding NMFS' assessment and consideration of that event. It should be noted that NMFS considered active sonar transmissions a plausible, if not likely, contributing

factor in the Hanalei stranding in what may have been a ''confluence of events,'' including a unique interaction of biological and physical factor—most of which are not expected to occur in the Study Area or during GOA activities. The biological factors may have included the presence of an apparently uncommon, deep-diving cetacean species (and possibly an offshore, non-resident group), social interactions among the animals before or after they entered the Bay, and/or unknown predator or prey conditions. The physical factors may have included the presence of nearby deep water, multiple vessels transiting in a directed manner while transmitting active sonar over a sustained period, the presence of surface sound ducting conditions, and/or intermittent and random human interactions while the animals were in the Bay.

Comment 17: NRDC *et al.* commented that NMFS and the Navy also fail to incorporate data on harbor porpoises and beaked whales in their dataset.

Response: NMFS disagrees with the commenters' assessment. The Navy and NMFS have used studies on harbor porpoises and beaked whales in the data sets used for analysis. Please see Section 3.8.3.1.5 (Sonar and Other Active Acoustic Source) of the GOA FSEIS/OEIS where this information is presented. The analysis includes, for example, data from both captive and wild harbor porpoises (see Kastelein *et al.* (2000, 2005b) and Johnston (2002)) and behavioral responses from a wild population of beaked whales as documented by Tyack *et al.* (2011). Please also refer to the cited Finneran and Jenkins (2012) for additional details. Finally, please see the discussions presented in Section 3.8.3.1.6.4 of the GOA FSEIS/OEIS (Model Assumptions and Limitations), which describes the numerous conservative assumptions incorporated into the Navy's model.

Last, in further and more specific quantitative acknowledgement of the sensitivity of these species, more conservative step functions are used to evaluate behavioral disturbance (*i.e.,* estimate take) to beaked whales and harbor porpoises (140 and 120 dB, respectively).

Comment 18: NRDC *et al.* commented that the risk function should have taken into account the social ecology of some marine mammal species.

Response: The Navy and NMFS have taken these factors into account to the best extent practical given limitations in the model and available science. Although the state of science is not complete in terms of group response by species, life stage, or even behavioral context in which an individual or group experiences an anthropogenic sound, as detailed in the GOA FSEIS/OEIS Section 3.8.3.1.6.3 (Navy Acoustic Effects Model) and the Navy's Determination of Acoustic Effects Technical Report (Marine Species Modeling Team, 2015), group size is accounted for in the modeling of acoustic effects, not in the risk function. The risk function predicts the percentage of the number of individuals exposed above a given level that will be taken. The model deals with the distribution of animats (virtual representations of animals) derived from density, associated group size, and depth distribution, and, therefore, the model is where group size can be addressed. Furthermore, just as one could hypothesize a naïve animal on its own could potentially influence the behavior of the whole group with negative effect (resulting in a group behavioral reaction), so might an experienced individual influence the behavior of the whole group with positive effect and calm the pod so there is no reaction rising to the level of a take in any individual or the pod as a whole. In summary, the current model process (risk function, modeling) does the best job of averaging multiple inputs as well as estimating the most representative take possible.

Comment 19: NRDC *et al.* commented that NMFS' threshold is applied in such a way as to preclude any assessment of long-term behavioral impacts on marine mammals. It does not account, to any degree, for the problem of repetition: The way that apparently insignificant impacts, such as subtle changes in dive times or vocalization patterns, can become significant if experienced repeatedly or over time.

Response: NMFS disagrees. Specifically, NMFS' thresholds are not designed to analyze long-term impacts or repetition; they are designed to predict individual acute behavioral responses. Assessments of long-term impacts are addressed qualitatively in the narrative. This analysis is presented in the GOA FSEIS/OEIS in Section 3.8.3.1.3 (Long-Term Consequences to the Individual and the Population) and Section 3.8.4 (Summary of Impacts (Combined Impacts of all Stressors) on Marine Mammals) where cumulative impacts are addressed, as well as in the Analysis and Negligible Impact Determination section of this rule. Assessment of long-term cumulative impacts to species and stocks is also represented by the discussion in Section 3.8.5 of the GOA FSEIS/OEIS (Summary of Observations During Previous Navy Activities). Of note, NMFS finds that the vast majority of impacts expected from sonar exposure and underwater detonations will be behavioral in nature, temporary and comparatively short in duration, relatively infrequent, and specifically not of the type or severity that would be expected to be additive for the small portion of the stocks and species likely to be exposed.

This analysis is further corroborated by the healthy, and in some locations, increasing marine mammal populations, where sonar use has been occurring for decades and is frequently in use on an annual basis, such as on instrumented ranges. As noted previously, there is no evidence that Navy activities have had or are having any long-term impact on marine mammal populations or stocks. For more information, see the *Long-Term Consequences* discussion in the ''Analysis and Negligible Impact Determination'' section of this rule.

Finally, the proposed Navy training activities will occur over a short period of time (up to 21 days) once a year. Further, with the change in preferred alternative to Alternative 1, the Navy activities, and resulting predicted takes, have essentially been reduced by half and consist of mainly low-level behavioral responses and occasional occurrences of TTS, with only 4 Level A harassment takes estimated for one species. As a result, long-term behavioral impacts on marine mammals within the GOA TMAA during the Northern Edge exercise are unlikely to occur.

Comment 20: NRDC *et al.* commented that while NMFS and the Navy have assigned a specific threshold to beaked whales, in light of Tyack *et al.* (2011), it is clear that some beaked whales are taken on exposure to mid frequency sonar at levels below 140 decibels (SPL).

Response: The Navy and NMFS specifically considered the Tyack *et al.* (2011) study, which was cited in the GOA FSEIS/OEIS and proposed rule, and its findings were incorporated into the threshold for beaked whales (see the GOA FSEIS/OEIS Section 3.4.3.1.6 (Behavioral Reactions)). During Tyack *et al.'s* (2011) research at the Navy's fixed tracking range in the Bahamas, animals were observed to leave the immediate area of the anti-submarine warfare training exercise (avoiding the sonar acoustic footprint at a distance where the received level was ''around 140 dB'' SPL. Further, Moretti *et al.* (2014) recently derived an empirical risk function for Blainville's beaked whale that predicts there is a 0.5 probability of disturbance at a received level of 150 dB SPL, suggesting that in some cases the current step function may over-estimate

the effects of an activity using sonar on beaked whales. Therefore, NMFS has concluded that, based on the best available science, 140 dB re 1μPa (root mean square) is a conservative and appropriate threshold for predicting potential behavioral effects on beaked whales from sonar signals.

Comment 21: NRDC *et al.* commented that there are additional flaws in the Navy's acoustic effects modeling, which include: a lack of any indication that the Navy has accounted for reverberation effects in its modeling, or that its modeling sufficiently represents areas in which the risk of reverberation is greatest; and a failure to consider the possible synergistic effects on marine mammal physiology and behavior of using multiple acoustic sources in spatial and temporal proximity.

Response: NMFS disagrees. As presented in the Section 3.8.3.1.6.3 (Navy Acoustic Effects Model) of the GOA FSEIS/OEIS and in the referenced modeling technical report (Marine Species Modeling Team, 2015), the Navy's acoustic effects modeling incorporates the most up to date marine mammal density data and oceanographic data for the quantification of predicted acoustic impacts to marine mammals. Contrary to the assertions in the comment, the model does account for a fully three-dimensional environment in calculating sound propagation and exposures incorporating site-specific bathymetry, sound speed profiles, wind speed, and bottom properties into the propagation modeling process. As noted in the GOA FSEIS/OEIS, the modeling accounts for all sources within a scenario simultaneously, so this modeling approach specifically accounts for the combined (additive) effects from using multiple acoustic sources in spatial and temporal proximity (*i.e.,* the cumulative SEL is a composite of all sources received by the animat). Multiple conservative assumptions are incorporated into the model.

Comment 22: The Commission recommended that NMFS require the Navy to provide the predicted average and maximum ranges for all impact criteria (*i.e.,* behavioral response, TTS, PTS, onset slight lung injury, onset slight gastrointestinal injury, and onset mortality), for all activities (*i.e.,* based on the activity category and representative source bins and including ranges for more than 1 ping), and for all functional hearing groups of marine mammals within the GOA TMAA.

Response: Ranges to effects for all criteria and functional hearing groups are provided for representative active sonars and explosives (Section 3.8.3.3.1.1, Range to Effects) in the GOA FSEIS/OEIS. Table 6 in this rule provides updated ranges to PTS and TTS for the major activity types in the context of the applicable mitigation measures. Changes for different taxa were described in more detail in the ''Summary of Request'' section of this Notice. See the ''Summary of Request'' section for further detail.

Generally speaking, for the modeled ranges, the representative sources include the most powerful active sonar source and the charge with the largest net explosive weight analyzed. NMFS believes that these representative sources provide adequate information to analyze potential effects on marine mammals. Because the Navy conducts training in a variety of environments having variable acoustic propagation conditions, variations in acoustic propagation conditions are considered in the Navy's acoustic modeling and the quantitative analysis of acoustic impacts. Average ranges to effect are provided in the GOA FSEIS/OEIS to show the reader *typical* zones of impact around representative sources rather than an inclusive list of source bins. As presented in Chapter 5 of the GOA FSEIS/OEIS, the mitigation is the same for all bins within the activity category. The presentation of a maximum range based on a worst case analysis under extreme conditions would fail to be representative and therefore potentially confuse readers by presentation of a range to effects that are extremely unlikely to ever be present in actual real world conditions.

Because the ranges to PTS for acoustic sources are relatively short, the ranges to PTS presented in the GOA FSEIS/OEIS are representative of the ranges for purposes of the discussion. In short, the information provided in the GOA FSEIS/OEIS (and updated in Table 6 here) should be considered applicable to the GOA TMAA Study Area. The approximate maximum ranges to TTS provided in the GOA FSEIS/OEIS (Table 3.8–12) are also representative of the ranges to effect and are provided in the FSEIS/OEIS to show the typical zones of impact around representative sources.

As explained in the GOA FSEIS/OEIS in Section 3.8.3.3.1.1 (Range to Effects), there is no reason to show a PTS range for more than one ping because of the short distances over which a PTS has the potential to occur. For the case of the most powerful hull-mounted source (hull-mounted mid-frequency anti-submarine warfare sonar) the ship moves beyond the PTS zone for each successive ping and there is no difference in magnitude of successive pings. Refer to Section 3.8.3.1.1 (Non-impulsive and Impulsive Sound Sources) of the GOA FSEIS/OEIS. Pings occur approximately every 50 seconds, and each subsequent ping has the same approximate range to PTS from the bow of the ship as the first ping. Therefore, there is not sufficient overlapping energy from one ping to the next to make presentation of multiple pings useful. As noted in the comment and presented in the GOA FSEIS/OEIS, an animal would have to be exposed at the TTS level by the first ping and then continue parallel to the ship within close proximity for 50 seconds to receive a second ping, potentially resulting in a PTS level exposure. Given the science detailed in the GOA FSEIS/OEIS (see Section 3.8.3.1.7, Marine Mammal Avoidance of Sound Exposures) indicating that marine mammals will behaviorally avoid high levels of sound, the assumption that a marine mammal would not remain alongside a pinging vessel is a simple but reasonable assumption. The GOA FSEIS/OEIS and this final rule conclude that it is unlikely for an animal to maintain a speed of 10 knots and stay in close proximity to a vessel using active sonar. As presented in the GOA FSEIS/OEIS (see Section 3.8.3.3.1.1, Range to Effects), while 10 knots was the ship's speed used in the model, a ship engaged in anti-submarine warfare training could be moving at between 10 and 15 knots. For a Navy vessel moving at a nominal 10 knots, it is unlikely a marine mammal could maintain the speed to parallel the ship and receive adequate energy over successive pings to result in a PTS exposure.

Mitigation and Monitoring

Comment 23: The Commission and other commenters recommended that NMFS require the Navy to use passive and active acoustics, whenever practicable, to supplement visual monitoring during the implementation of its mitigation measures for all activities that could cause PTS, injury, or mortality beyond those explosive activities for which passive acoustics already was proposed (commenters also specifically suggested modifying sonobuoys for this purpose). NRDC *et al.* also suggested use of dedicated passive acoustic monitoring to detect vocalizing species, through established and portable range instrumentation and the use of hydrophone arrays off instrumented ranges. The Commission also questioned why passive and active acoustic monitoring used during the Navy's Surveillance Towed Array Sensory System Low Frequency Active

(SURTASS LFA) activities is not applied here.

Response: The primary purpose of the mitigation shutdowns is to avoid injury, most TTS, and more severe instances of behavioral disturbance. We note that in the current mitigation paradigm, without additional PAM or active acoustic detection as recommended by the Commission and other commenters, only four individual Dall's porpoises are anticipated to incur PTS, Level B harassment resulting in TTS is anticipated for a small number of marine mammals from a few species, and modeling predicts that zero percent of the Level B harassment takes result from exposure at closer than 1,825 m (less than 1–2 percent at closer than 4 km), which is where the mitigation shutdowns would apply. For the reasons described below, when the minimal potential likelihood of reducing impacts to marine mammal species or stocks and their habitat is weighed along with the degree of impracticability for implementing the measures suggested by commenters, NMFS finds that requiring such additional mitigation is unwarranted.

Passive acoustic monitoring is already and will continue to be implemented. As mentioned in Chapter 5 (Standard Operating Procedures, Mitigation, and Monitoring) of the GOA FSEIS/OEIS and the ''Mitigation'' section of this final rule, passive acoustic monitoring would be conducted with Navy assets, such as passive ships sonar systems or sonobuoys, already participating in the activity. The Navy does not have the resources to construct and maintain passive acoustic monitoring (PAM) systems for each training and testing activity. Discussion in the GOA FSEIS/OEIS Section 5.3.3.1.11 (Increasing Visual and Passive Acoustic Observations) further articulates why increased use of passive acoustics for the purpose of mitigation would be impractical with regard to implementation of military readiness activities and result in an unacceptable impact on readiness. Additionally, mitigation measures were developed based on predicted potential impacts; therefore, the use of acoustic monitoring is not always warranted, nor practicable from an operational standpoint (GOA FSEIS/OEIS Section 5.3.2.1, Acoustic Stressors). The Navy's visual mitigation has been demonstrated to be effective over the 8 years of monitoring associated with Navy training and testing at sea as reflected in publically available reports submitted to NMFS since 2006 and accessible on the NMFS Office of Protected Resources Web site (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*) (see Section 3.8.5, Summary of Observations During Previous Navy Activities, of the GOA FSEIS/OEIS, for more information in this regard).

Regarding its effectiveness, passive, and active in specific cases, acoustic detection can increase the likelihood of detecting marine mammals for the purposes of implementing mitigation, although passive acoustic detection can only be effective when animals are vocalizing, and when they are vocalizing at a level and in a direction that will be detected and recognized by the sensor (only a subset of the time). Also, with the exception of the largest sound sources, the size of any ensonified zone combined with the density of marine mammals and the likelihood that they avoid loud sounds, there is only a relatively small number of times (compared to overall scope of exercises) that we would predict that animals would come within distances that require shutdowns (as noted above), and that would be further improved by the use of PAM. Additionally, sophisticated use of multiple sensors is needed in order to predict the distance and bearing of the vocalizing animals that is needed to justify implementing a shutdown. The effectiveness of PAM for mitigation implementation is somewhat further impeded by fast moving sources because of the constantly changing location of the marine mammal in relation to the moving source combined with the inability to detect the direction of movement of the animal in the moment it is detected. PAM is expensive and operationally challenging (or impossible) to implement in many cases and the Navy uses thousands of sound sources across its exercises. As described above, Navy uses PAM in certain activities where the risk is higher (*e.g.,* explosives or some hull-mounted sonar), and/or where it is notably much more practicable to use (*e.g.,* for stationary sources such as the Improved Extending Echo-ranging (IEER) system, which is a field of multiple sources). However, given the limited added conservation value added by using PAM to implement mitigation, combined with the impracticability of doing so in many cases, NMFS does not believe that additional use of PAM is warranted for all sources and we believe that the PAM use required by these regulations contributes to ensuring the least practicable adverse impact on the effected marine mammal species and stocks and their habitat.

The SURTASS LFA platforms are slow moving and deploy a high frequency active sonar (HF/M3) to identify marine mammals in close proximity (2 km) to the SURTASS LFA vessel. The active sonar system used by SURTASS LFA is built into the system's vertical array and can only be employed in this fashion from a slow-moving or stationary platform. It is not possible to employ this system on the types of vessels used for the GOA training activities because a vertical array cannot be used on other ship classes whose mission includes speed and tactical movement while protecting aircraft carriers and other high value units. Further, in addition to the difficulty in implementation, NMFS does not generally support the use of active acoustic monitoring except in cases where it is mitigating an effect of potentially very high or singular severity and there is a high likelihood of successful use (stationery or slow-moving platforms), as it essentially equates to harassing marine mammals by putting the active detection signal in the water in order to prevent harassing marine mammals with the main sound source for which takes are being authorized. NMFS has only previously considered the use of active acoustic detection in a few situations, one for SURTASS LFA (actually implemented), in which the HF active acoustics are used from a slow-moving platform to implement mitigation and avoid impacts from a very high-level LF source, and two other situations that were never implemented—one from a dock for testing a very loud source in port, and one from a large piece of heavy machinery wherein bodily injury was a possibility.

Modifying sonobuoys to increase their bandwidth is considered impractical for the Navy because it would require significant modification to the sonobuoy receiving equipment at a substantial cost and reduce the effectiveness of the sonobuoy system's ability to detect submarines. See section 5.3.3.1.13 of the GOA FSEIS/OEIS (Increasing Visual and Passive Acoustic Observations) for further information regarding the use of passive sensors.

Comment 24: NRDC *et al.* commented that NMFS should restrict the Navy's active sonar and explosives training activities around certain important habitat areas—specifically, marine protected areas (MPAs) and recently identified and published biologically important areas (see Ferguson *et al.,* 2015) located within or in close proximity to the GOA TMAA. NRDC *et al.* also recommended that NMFS identify other time/area closures as informed by the following: (1) Temporally and spatially well-defined phytoplankton blooms occurring in portions of the TMAA and driven by the

tides, bathymetry, and eddy systems of the northern and central Gulf of Alaska; (2) relative densities of large whales within the April to October period as informed by BIA and call rate data; (3) temporal and spatial differences in the depth of the mixed layer and the sonic layer which can create different surface ducting conditions; and (4) review of major seamounts, representing potentially biologically important habitat for multiple species, within the GOA TMAA.

Other commenters recommended similar time/area-specific mitigation for Navy training activities, including avoidance of seamounts and BIAs, and restriction of training during the spring/summer time period.

Response: Mitigation measures that include spatio-temporal avoidance of biologically important areas, MPAs, and other marine species habitat (*e.g.,* seamounts) within the GOA TMAA Study Area were fully considered and are discussed in the ''Consideration of Time/Area Limitations'' section of this final rule.

As discussed in the proposed and final rules and in the GOA FSEIS/OEIS, biologically important feeding areas for North Pacific right whale and migration areas for gray whale (Ferguson *et al.,* 2015) overlap small portions of the western edge/corners of the TMAA. The overlap is small both spatially for both, and temporally for gray whale migration (November through January and March through May; Navy activities within the TMAA have historically occurred in summer months). As discussed in ''Consideration of Time/Area Limitations,'' it is unlikely that Navy explosive and sonar training would occur in these nearshore locations adjacent to the GOA TMAA boundary where the overlap with BIAs occurs. Therefore, North Pacific right whales and gray whales in the feeding or migration areas at these boundaries of the GOA TMAA are unlikely to have their feeding or migration activities affected by Navy training activities using sonar and other active acoustic sources. However, after considering the small population size of North Pacific right whales, the rarity of their detections and general lack of sightings within the GOA TMAA, and the extremely limited current information about this species, NMFS is requiring a North Pacific right whale ''Cautionary Area'' between June and September in the overlapping 2,051 km^2 portion of the North Pacific right whale feeding area (See Figure 3.8–4 of the GOA FSEIS/OEIS), in which no hull-mounted sonar or explosives would be used within the portion of the feeding area that overlaps the Navy's GOA TMAA during those months, except when required by national security needs. In the event of national security needs, the Navy would be required to seek approval in advance from the Commander, U.S. Third Fleet prior to conducting training activities using sonar or explosives. NMFS believes that implementation of this North Pacific right whale Cautionary Area within the GOA TMAA may provide additional protection of this species and stock beyond the mitigation measures already proposed by the Navy in the proposed rule and GOA FSEIS/OEIS. In the case of the gray whale migratory area, given the extremely minimal spatio-temporal overlap with Navy training activities in the GOA TMAA, coupled with the fact that no takes of gray whale are predicted to occur with the proposed level of training effort, NMFS has determined that additional mitigation measures related to time/area limitations of Navy training activities within the overlapping portion of the migratory area are not warranted, nor would avoidance of this area contribute to the least practicable impact standard or any lessening of the likelihood of adverse impacts on the species or stocks.

Very few MPAs are located near or within the GOA TMAA. MPAs vary widely in purpose, level of protection, and restrictions on human uses. As discussed in ''Consideration of Time/Area Limitations'' and in the GOA FSEIS/OEIS, MPAs in the vicinity of the GOA TMAA generally focus on natural heritage, fishery management, and sustainable production. The identified impacts and purpose for the designation of these areas is to limit or restrict specific fishing activities, and the Navy would fully abide by the regulations (mainly restrictions on commercial and recreational fishing) of the individual MPA and relevant resources. Since the Navy does not engage in fishing activities, restricting Navy training activities in these areas would be ineffective at preventing the identified impacts caused by fishing. Our issuance of an authorization to take marine mammals would not conflict with the management, protection, or conservation objectives of these MPAs. Therefore, NMFS has determined that Navy avoidance of these areas is not warranted, nor would it contribute to the least practicable impact standard or any lessening of the likelihood of adverse impacts on species or stocks.

While seamounts may represent important habitat for multiple species (including marine mammals), the major seamounts located within the TMAA (*e.g.,* Dall, Quinn, and Giacomini seamounts) have been designated by NOAA as Gulf of Alaska Seamount Habitat Protection Areas specifically to help maintain productivity of fisheries resources through restrictions on bottom fishing. Moreover, NMFS' review of the passive acoustic monitoring results in the Navy's annual monitoring reports (2011–2015) for GOA generally does not suggest significantly greater use of these seamounts by marine mammals (at least for those where HARPS were deployed; it is also important to note that an animal may be located several miles away from where it is detected) compared to other locations (shelf and slope) where detections were recorded. Navy monitoring efforts indicate that beaked whales appear to use both shelf and seamount sites, although detections were generally low at the monitored seamount sites within the TMAA and may in fact be more prevalent at the slope site. Fin and humpback callings peaked in winter when Navy activities are not proposed to occur. Fin and sperm whale detections were generally more prevalent at shelf and slope sites, respectively. Blue whale calls were detected at all sites. North Pacific right whale calls were last detected in 2013, on the Quinn Seamount site; however, analysis of these detections indicated that the calls were detected from ranges on the order of roughly up to 50 nm to the east of the site; the calling animal was not in the vicinity of Quinn Seamount (Debich *et al.,* 2014; Širović *et al.,* 2014). The Navy has been training with sonar and other systems for decades in locations having seamounts or slope areas, or that are adjacent to continental shelfs where, to date, there has been no evidence of any long-term consequences for individuals or populations of marine mammals. This finding is based on years of research and monitoring that show, for example, higher densities and long-term residency by species such as beaked whales in Southern California, where the Navy trains and tests, than in other adjacent areas. Further, the Navy has identified the need to train in varied bathymetric conditions, including around seamounts specifically. Restricting Navy training to areas away from these bathymetric features would eliminate the ability to train as needed in these complex environments and would reduce the realism of the military readiness activity, while simultaneously providing limited protective value.

It is not practicable to require limited activity during phytoplankton blooms. The key consideration is these features are highly variable temporally and spatially throughout the entire Gulf of

Alaska both inside and outside of the TMAA. Monthly, annual, inter-annual, and decadal oceanographic conditions will drive the establishment and disestablishment of these areas which cannot be predicted in terms of the GOA TMAA authorization. In review of 15 years of oceanographic data from 1992–2006, Henson and Thomas (2008) for instance discuss how anticyclonic oceanographic eddies that pull most of the near shelf nutrients into offshore waters can have substantial inter-annual variability in number and propagation paths from east to west. These eddy zones and entrained nutrients would highly influence phytoplankton blooms. Henson and Thomas (2008) also showed seasonal patterns with strongest spring and summer eddy zones likely to be in the north-northeast slope area of the Gulf of Alaska, in areas outside of the GOA TMAA. Late spring and early summer (May to July) is the most likely period for any Navy major training event. Given this degree of variability, it would be impractical to consider on an annual basis which areas would likely contain the presence of these phytoplankton blooms, or how long a given bloom would persist even if an eddy were present.

NMFS notes that the call rate data cited by the commenters, as well as the Navy's more recent and more robust passive acoustic data from 2011–2015, only provide occurrence specifically for that part of a given species' population that may be calling at a particular time. The Navy data set alone represents over 58,953 hours or 2,456 days' worth of passive acoustic data that has been collected, analyzed, and results reported. The science of density and relative density estimation from passive acoustic data is still being researched under funding from several different Navy programs. For example, the current Navy funded research is focusing on aspects such as the proper characterization of calling rates, range of detection, and group size, all of which can vary by species, region, time of year/day, sex, etc. All of these variables can impact the resulting density estimate, and therefore the method of incorporating these variables needs to be investigated further. Meanwhile, the best available density data (available at *https://www.goaeis.com/Documents/SupplementalEISOEISDocumentsandReferences/SupportingTechnicalDocuments.aspx*), which was used in the Navy's FSEIS/OEIS and this rule to calculate take, does not support the designation of restricted areas within the TMAA. First, density estimates for many of the species are uniform across the entire TMAA (*e.g.,* Cuvier's beaked whales, Minke whales, gray whales) and other species have simple models with only a few strata (meaning that there is one uniform density value in a zone, with a few zones: Typically shelf, slope, deep, and sometimes a differential at the southern edge of the deep water that is closer to the sea mounts), but different strata are high-density for different species. For example, fin whales are densest on the shelf, decreasing in slope strata, with lowest density in deep water, while sei whales are densest in the deep waters and least dense on the shelf. This means that restricting activities in one area that is important to one species would intensify activities in an area that is important to another species. Additionally, the Navy has specifically noted the importance of training across these multiple bathymetric features, so creating a time/area closure that mirrors a bathymetric strata (*e.g.,* the whole slope, or the whole shelf) is inherently detrimental to the Navy's mission. Separately, though, the Navy has also noted in the description of its action that more hazardous activities, such as those that use explosives, are generally not conducted on the edges of the TMAA, due to safety and proximity to coastal areas.

With respect to surface ducting conditions, environmental conditions in the Gulf of Alaska during the timeframe when Navy training activities would generally occur do not support surface ducting conditions. A surface duct requires cold water at the surface with warmer water at deeper depths which is highly unlikely during the warmer summer months in the Gulf of Alaska when training has historically occurred. In addition, there has been no indication that mixed layer depth has any direct influence on marine mammal behavior or response to anthropogenic sounds.

Regarding the benefits of the proposed time/area limitations that NMFS has decided not to require, it is possible that the application of one or more of these areas could potentially decrease the number of takes of one species or another, depending on when and where the exercise ended up taking place. However, as we have explained, due to the nature of the exercise (short duration) and the effectiveness of the existing mitigation measures, the anticipated impacts are already expected to be primarily lower-level behavioral responses and are not anticipated to occur in times or places where impacts would be more likely to lead to fitness effects on individuals. When the limited anticipated potential benefit to marine mammal species and stocks of applying these measures is combined with the impracticability of implementation, NMFS has concluded that requiring these measures is not warranted. NMFS has determined that the mitigation measures required by this rule, including those clarified or updated above (see ''Consideration of Time/Area Limitation''), 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.

NMFS agrees with NRDC and other commenters that there continues to be a need to better understand the spatial distribution and occurrence of marine mammals within the Gulf of Alaska, including the use of potentially important habitat areas within the GOA TMAA. Therefore, NMFS envisions a more focused monitoring effort in the GOA TMAA during the Phase II training activities. Objectives of any future monitoring in the GOA TMAA will be discussed during upcoming NMFS-Navy adaptive management meetings in 2017.

Comment 25: NRDC *et al.* suggested the use of sonar and other active acoustic systems at the lowest practicable source level, with clear standards and reporting requirements for different testing and training scenarios.

Response: The Navy uses active sonar at the lowest practicable source level consistent with mission requirements. See Section 5.3.3.1.3 of the GOA FSEIS/OEIS (Reducing Sonar Source Levels and Total Number of Hours) for further information.

Comment 26: NRDC *et al.* suggested expansion of the marine species ''safety zone'' to a 4 km shutdown, reflecting international best practice, or 2 km, reflecting the standard prescribed by the California Coastal Commission for similar activities in Southern California.

Response: Section 5.3.3.1.14 of the GOA FSEIS/OEIS (Increasing the Size of Observed Mitigation Zones) discusses mitigation zone expansion. See also Section 5.3.3.1.16 of the GOA FSEIS/OEIS (Adopting Mitigation Measures of Foreign Navies). There is no internationally recognized best practice with regard to mitigation zone distance. The Navy developed activity-specific mitigation zones based on the Navy's acoustic propagation model. As described previously, each recommended mitigation zone is

intended to avoid or reduce the potential for onset of the lowest level of injury, PTS, out to the predicted maximum range. Mitigating to the predicted maximum range to PTS consequently also mitigates to the predicted maximum range to onset mortality (1 percent mortality), onset slight lung injury, and onset slight gastrointestinal tract injury, since the maximum range to effects for these criteria are shorter than for PTS. Furthermore, in many cases, the mitigation zone actually covers the TTS zone.

Implementation of mitigation measures is most effective when the mitigation zone is appropriately sized to be realistically observed. The mitigation zones contained in this final rule represent the maximum area the Navy can effectively observe based on the platform of observation, number of personnel that will be involved, and the number and type of assets and resources available. As mitigation zone sizes increase, the potential for reducing impacts decreases. For instance, if a mitigation zone increases from 1,000 to 4,000 yd (914 to 3,658 m), the area that must be observed increases sixteen-fold, which is not practicable. The Navy does not have the resources to maintain additional Lookouts or observer platforms that would be needed to effectively observe mitigation zones of increased size. The mitigation zones contained in this final rule balance the need to reduce potential impacts with the Navy's ability to provide effective observations throughout a given area.

Comment 27: NRDC *et al.* suggested that the Navy delay or relocate activities when beaked whales are detected through passive acoustic monitoring and when significant aggregations of any species or particularly vulnerable or endangered species (or even sightings of single North Pacific right whales) are detected by any means in the vicinity of an exercise, even if potentially occurring beyond the established mitigation zone.

Response: Mitigation will be implemented within the mitigation zone for all marine mammals regardless of species or numbers of animals if they approach or enter a mitigation zone. NMFS disagrees that it is necessary to delay or relocate activities when beaked whales, North Pacific right whales, other sensitive species, or significant aggregations of marine mammals are detected outside the mitigation zones. For the GOA activities, the Navy developed each recommended mitigation zone to avoid or reduce the potential for onset of the lowest level of injury, PTS, out to the predicted maximum range. Furthermore, in many cases, the predicted maximum range to PTS also consequently covers the predicted average range to TTS and further alleviates the likelihood of more severe behavioral responses that might be anticipated at higher level exposures. The activity-specific mitigation zones are based on the longest range for all the functional hearing groups. The mitigation zone for a majority of activities is driven by either the high-frequency cetaceans or the sea turtle functional hearing groups. Therefore, the mitigation zones are even more protective for the remaining functional hearing groups (*i.e.,* low-frequency cetaceans, mid-frequency cetaceans, and pinnipeds). The predicted ranges are based on local environmental conditions and are unique to the GOA TMAA Study Area.

With respect to passive acoustic monitoring, all passive acoustic detections will be reported to Lookouts to increase vigilance of the visual surveillance. However, as stated previously, passive acoustic monitoring can neither provide range or bearing to detected animals, and therefore cannot provide locations of these animals.

As described previously, Navy watchstanders report both inanimate objects and marine mammals. Although they attend training to understand more about marine mammals, they are not expected to be able to identify animals at the species level and they report only with the specificity that they can (typically whether the marine mammal observed was a whale, dolphin, or pinniped). Therefore, they would not be able to implement mitigation measures that require identification of specific species (and we have described previously why the Navy cannot utilize non-Navy trained observers). Moreover, the 2011 and 2015 exercise reports for GOA indicate that during these previous training exercises, watchstanders had a total of 4 and 31 sightings, respectively (10 and 68 marine mammals). Only 2 sightings occurred when sonar was operating. Only 5 sightings included more than 3 animals, and the vast majority were of a single animal. This data suggests that shutting down for aggregations would not actually occur with any regularity and would not, therefore, be expected to contribute to any meaningful reduction of impacts on marine mammals.

The additional mitigation measure recommended by commenters is designed to further reduce the numbers of takes by Level B harassment, focusing on aggregations or endangered species. One point that is often overlooked is that when a training exercise is interrupted for a shutdown, it does not just start back up; training exercises often involve a series of actions and movements that develop over a period of time. Also, the effectiveness of some of the exercises involving certain types of targets with a limited battery life can be jeopardized if restarts result in the exercise length exceeding the needed battery life. It is difficult to predict how much of an exercise will need to be redone, but it is safe to say that shutting down will typically result in a longer total duration of sound source operation as operators reacquire targets or otherwise get back to where they were before the shutdown—potentially increasing impacts.

In short, the existing mitigation measures for marine mammals minimize the likelihood of PTS, TTS, or more severe behavioral responses and, with the addition of the North Pacific Right Whale Cautionary Area, ensure that takes are not occurring in particularly important areas or times that would be more likely to result in impacts on individual fitness. Additionally, as explained throughout this final rule, the predicted Level B harassment authorized is expected to be of a lower level type of effect, of short duration, and unlikely to adversely impact reproductive success or survivorship of any individuals (the type of effects that would lead to population-level impacts). Further, there are comparatively low numbers of Level B harassment authorized for endangered and threatened whales, and only three annual takes of North Pacific right whales. In addition to the fact that the current watchstander requirements do not support the implementation of any measures that require species identification, shutdowns beyond those currently recommended to minimize more severe effects will have limited, if any, ability to reduce impacts on marine mammal species or stocks and their habitat, while being disruptive to Navy training and potentially lengthening the overall time that sound sources are operating. For these reasons, NMFS does not believe that these measures are warranted.

Comment 28: NRDC *et al.* suggested use of simulated geography (and other work-arounds) to reduce or eliminate chokepoint exercises in near-coastal environments, particularly within canyons and channels, and use of other important habitat. Other commenters recommended Navy simulation of training activities as well.

Response: There are no chokepoint exercises in the Study Area. Further, the Navy does have a particular set of monitoring measures (intended to help

reduce the chance of a stranding) that would be applied if a combination of circumstances exist that are thought to make a stranding more likely (*e.g.,* steep bathymetry, multiple vessels using sonar in a single area over an extended period of time, constricted channels or embayments). However, a combination of these environmental and operational features is not present in the GOA TMAA Study Area.

As discussed in Section 2.3.2.4 (Simulated Training) of the 2011 GOA FEIS/OEIS and Section 5.3.3.1.2 (Replacing Training with Simulated Activities) of the GOA FSEIS/OEIS, the Navy uses computer simulation for training whenever possible. However, training in near-coastal environments is an essential component to maintaining military readiness. Computer simulation can provide familiarity and complement live training; however, it cannot provide the fidelity and level of training necessary to prepare naval forces for deployment. Sound propagates differently in shallower water and operators must learn to train in this environment. Additionally, submarines have become quieter through the use of improved technology and have learned to hide in the higher ambient noise levels of the shallow waters of coastal environments. In real world events, it is highly likely Sailors would be working in, and therefore must train in, these types of areas. The littoral water space is also the most challenging area to operate in due to a diverse acoustic environment. It is not realistic or practicable to refrain from training in the areas that are the most challenging and operationally important. Operating in near-costal environments is essential in order to provide realistic training on real world combat conditions with regard to shallow water sound propagation.

Comment 29: NRDC *et al.* suggested avoidance or reduction of training during months with historically significant surface ducting conditions; delay of activities or use of power-downs during significant surface ducting conditions; and use of additional power-downs when significant surface ducting conditions coincide with other conditions that elevate risk.

Response: As discussed in a previous response to comments above, environmental conditions in the Gulf of Alaska during the timeframe when Navy training activities would generally occur do not support surface ducting conditions. A surface duct requires cold water at the surface with warmer water at deeper depths which is highly unlikely during the warmer summer months in the Gulf of Alaska when training has historically occurred. In addition, although it is possible that a higher number of animals might be taken by Level B harassment in those moments when Navy training overlaps with surface ducting condition or be exposed to slightly higher levels than otherwise as the sound from nearby sources might propagate farther, there has been no indication that mixed layer depth has any direct influence on marine mammal behavior or response to anthropogenic sounds.

NMFS also notes that avoiding or reducing active sonar during surface ducts for the purpose of mitigation would increase safety risks to personnel, be impractical with regard to implementation of military readiness activities, and result in unacceptable impacts on readiness for the following reasons: The Navy must train in the same manner as it will fight. Submarines have long been known to exploit the phenomena associated with surface ducting. Therefore, training in surface ducting conditions is a critical component to military readiness because sonar operators need to learn how sonar transmissions are altered due to surface ducting, how submarines may take advantage of them, and how to operate sonar effectively in this environment. Avoiding activities during periods with surface ducting conditions or requiring the use of power-downs during surface ducting conditions would reduce a sonar operator's ability to effectively operate in a real world combat situation, thereby resulting in an unacceptable increased risk to personnel safety and the ability to achieve military readiness. Furthermore, avoiding surface ducting would be impractical to implement because ocean conditions contributing to surface ducting change frequently, and surface ducts can be of varying duration. See section 5.3.3.1.9 of the GOA FSEIS/OEIS for more information on avoiding or reducing activities during surface ducting conditions.

In conclusion, in the case of a Navy operation overlapping with a surface duct, it is possible that some higher number of animals might be taken by Level B harassment in those moments, or exposed to slightly higher levels than otherwise as the sound from nearby sources might propagate farther—and therefore, numbers of Level B harassment might be lowered slightly by avoiding a surface duct. However, a slight reduction in takes of this sort would not be expected to contribute meaningfully to a reduction in adverse impacts on species or stocks given the already low number and level of takes anticipated and the fact that the existing measures are expected to minimize the likelihood of injury, TTS or more severe behavioral responses, and impacts to North Pacific Right Whales in a known feeding area. When the minimal potential likelihood of reducing impacts to marine mammal species or stocks and their habitat is weighed along with the degree of impracticability for implementing this measure, NMFS finds that requiring it is unwarranted.

Comment 30: NRDC *et al.* suggested that the Navy plan their ship tracks to avoid embayments and provide escape routes for marine mammals.

Response: First, the GOA TMAA is an open water area that does not include any embayments and, therefore, operations are not expected to block escape routes for marine mammals. Further, NMFS notes that the Navy has a particular set of monitoring measures (intended to help reduce the chance of a stranding) that would be applied if a combination of circumstances exist that are thought to make a stranding more likely (*e.g.,* steep bathymetry, multiple vessels in a single area over an extended period of time, and in areas of constricted channels or embayments). However, a combination of these environmental and operational features is not present in the GOA TMAA Study Area.

The majority of Navy training activities involving ''ship tracks'' would occur in the offshore portion of the Study Area and therefore would not involve embayments. In inland waters where there may be areas that could be considered embayments, ship tracks are generally constrained by the vessel traffic separation scheme, safety of operation, and mission requirements. See Section 5.3.3.1.6 of the GOA FSEIS/OEIS (Limiting Access to Training Locations) for further information regarding limiting the location of activities.

Comment 31: Several commenters suggested that the Navy limit their activities to periods of good visibility. More specifically, NRDC *et al.* suggested that all weapons firing in missile and bombing exercises involving detonations exceeding 20 lb. net explosive weight take place during the period 1 hour after sunrise to 30 minutes before sunset.

Response: NMFS believes that effective mitigation measures are already in place to address missile and bombing exercises. Specifically, explosive activities are already expected to only result in small amounts of take of one species (Dall's porpoise). Further, since the proposed rule, Navy has eliminated two SINKEXs from the

proposed actions and MISSILEX in the GOA TMAA do not utilize live ordnance.

The Navy must train at night and in low-visibility conditions to ensure personnel may operate in similar conditions when required for actual operations. After sunset and prior to sunrise, watch personnel employ night visual search techniques, which could include the use of night vision devices. Please see the ''Mitigation'' section of the rule for further information. Section 5.3.3.1.8 of the GOA FSEIS/OEIS (Avoiding or Reducing Active Sonar at Night and During Periods of Low Visibility) also discusses activities conducted during varying environmental conditions.

In conclusion, the anticipated impacts from explosives are already low and there are detection techniques in place that are expected to avoid some of the nighttime exposures of marine mammals. It is difficult to predict the added value of avoiding nighttime explosive exercises completely above the exposures that will be avoided by implementing nighttime detection techniques—and further, how this might translate to any reduction in the already low explosive take numbers for Dall's porpoise. At any rate, when this small potential benefit is weighed against the impracticability of the Navy being unable to train in realistic environments, NMFS finds that this measure is unwarranted.

Comment 32: NRDC *et al.* suggested suspension or postponement of chokepoint exercises during surface ducting conditions and scheduling of such exercises during daylight hours.

Response: There are no chokepoint exercises in the GOA TMAA Study Area. See our response to the comment above regarding avoiding or reducing activities during surface ducting conditions. Also, see our response to the comment above regarding avoidance of activities at night.

Comment 33: NRDC *et al.* suggested use of dedicated aerial monitors during chokepoint exercises, major exercises, and near-coastal exercises.

Response: There are no chokepoints proposed for the Study Area. Please refer to Section 2 of the GOA FSEIS/OEIS for a detailed description of the action. As described throughout Chapter 5 of the GOA FSEIS/OEIS and in this rule (see ''Mitigation'' section), visual observation (aerial and vessel-based) would be conducted in association with Navy activities. With respect to the potential benefits of specific aerial monitoring, the point of such monitoring would be to augment detection of marine mammals for the implementation of shutdown measures, which are designed to prevent PTS, minimize TTS, and minimize more severe behavioral responses. NMFS' response to Comment 23 describes the minimal additional reduction of adverse impacts to marine mammal species or stocks that is likely to be gained by further increasing the effectiveness of shutdown measures. In short, zero percent of Level B harassment takes are expected to occur within approximately 1,825 m (which encompasses the shutdown area), and only 4 injurious (PTS) takes are expected to occur to one species.

With respect to practicability, specific aerial monitoring is not typically feasible given the limited duration of typical monitoring flights (less than four hours). In addition, there are significant flight safety considerations and airspace restrictions during many Navy exercises when larger groups of military aircraft are present in high numbers at various altitudes. When the minimal potential benefit of this measure is weighed along with the impracticability, NMFS believes that the measure is not warranted.

Comment 34: NRDC *et al.* suggested use of aerial surveys and ship-based surveys before, during, and after multi-unit exercises.

Response: As described throughout Chapter 5 of the GOA FSEIS/OEIS and in the ''Mitigation'' section of this rule, visual observation (aerial and vessel-based) would be conducted in association with Navy activities. The commenter did not describe what the purpose of these surveys would be (*e.g.,* to collect information, to delay or shutdown activities, etc.) and therefore it is difficult to evaluate how these suggested measures may or may not reduce adverse impacts to marine mammal species or stocks. However, please see other comment responses addressing the limited value of augmenting detection to facilitate shutdowns.

With respect to practicability, specific aerial monitoring is not typically effective or feasible given the limited duration of typical monitoring flights (less than four hours). In addition, there are significant flight safety considerations and airspace restrictions during Navy training when military aircraft are present in high numbers at various altitudes. Ship-based surveys before, during, and after multi-unit exercises are impractical due to the large amount of resources required and the significant impact such a requirement would have on readiness. In addition to the mitigation and monitoring required by this rule, which have proven to be effective, the Navy is also committed to a robust marine mammal monitoring program designed to answer specific questions about the effects of the Navy's activities on marine mammals.

Comment 35: NRDC *et al.* suggested use of all available range assets for marine mammal monitoring.

Response: The commenter did not specify the purpose of this monitoring or the specific assets referred to, so it is difficult to evaluate any potential benefits to marine mammal species or stocks along with any specific practicability issues; however, please see responses to other comments in this section recommending methods for augmenting detection. NMFS has worked with the Navy over the years to help develop the most effective mitigation protocols using the platforms and assets that are available for monitoring. The required mitigation measures in this document represent the maximum level of effort (*e.g.,* numbers of Lookouts and passive sonobuoys) that the Navy can commit to observing mitigation zones given the number of personnel that will be involved and the number and type of assets and resources available. Furthermore, there are no permanent Navy range assets or supporting infrastructure established in or near the GOA TMAA, which is a temporarily used area only.

Comment 36: Some commenters believe that using Lookouts as the primary strategy for limiting potential impacts from Navy activities is inadequate. NRDC *et al.* suggested the use of additional Lookouts, and the use of NMFS-certified observers for marine mammal detection. Other commenters recommended use of independent observers on all Navy vessels. Several commenters requested further information on the Navy's Lookout effectiveness study. More specifically, NRDC *et al.* suggested that the Navy complete a Lookout effectiveness study comparing the abilities of Navy vessel-based Lookouts and experienced marine mammal observers (MMOs), and a requirement for NMFS-certified lookouts or other monitoring enhancements if Navy observers are significantly less likely to detect marine mammals.

Response: One key component of the monitoring and mitigation required by this rule is the shipboard Lookouts (also known as watchstanders), who are part of the standard operating procedure that ships use to detect objects (including marine mammals) within a specific area around the ship during events. The Lookouts are an element of the Navy's monitoring plan, as required by NMFS

and specified in the LOA. The goal of Lookouts is to detect marine mammals entering ranges of 200, 500, and 1,000 yd (183, 457, and 914 m) around the vessel, which correspond to distances at which various mitigation actions should be performed. In addition to the Lookouts, officers on the bridge search visually and sonar operators listen for marine mammal vocalizations.

NMFS disagrees that using Lookouts as the primary strategy for limiting potential impacts from Navy activities is inadequate. Navy Lookouts are qualified and experienced observers of the marine environment. All Lookouts take part in Marine Species Awareness Training so that they are better prepared to spot marine mammals. Their duties require that they report all objects sighted in the water to the Office of the Deck (OOD) and all disturbances that may be indicative of a threat to the vessel and its crew. Lookouts are on duty at all times, day and night, when a ship or surfaced submarine is moving through the water. Visual detections of marine mammals would be communicated immediately to a watch station for information disseminations and appropriate mitigation action. The number of Lookouts required for each activity represents the maximum level of effort (*e.g.,* numbers of Lookouts and passive sonobuoys) that the Navy can commit to observing mitigation zones given the number of personnel that will be involved in an activity and the number and type of assets and resources available. The number of Lookouts that the Navy uses for each activity often represents the maximum capacity based on limited resources (*e.g.,* space and manning restrictions). NMFS has carefully considered Navy's use of Lookouts and determined that, in combination with the other mitigation measures identified, the Navy's mitigation plan will effect the least practicable adverse impacts on marine mammal species or stocks and their habitat.

Navy personnel are extensively trained in spotting items on or near the water surface. The use of third-party observers (*e.g.,* NMFS-certified protected species observers) in air or on surface platforms in lieu of or in addition to existing Navy Lookouts for the purposes of mitigation is impractical for the following reasons: The use of third-party observers would compromise security for some activities involving active sonar due to the requirement to provide advance notification of specific times and locations of Navy platforms; reliance on the availability of third-party personnel could impact training and testing flexibility; the presence of additional aircraft in the vicinity of naval activities would raise safety concerns; and there is limited space aboard Navy vessels.

In 2010, the Navy initiated a study designed to evaluate the effectiveness of the Navy Lookout team versus experienced MMOs. The University of St. Andrews, Scotland, under contract to the Navy, developed an initial data collection protocol for use during the study. Between 2010 and 2012, trained Navy marine mammal observers collected data during nine field trials as part of a ''proof of concept'' phase. The goal of the proof of concept phase was to develop a statistically valid protocol for quantitatively analyzing the effectiveness of Lookouts during Navy training exercises. Field trials were conducted in the HRC, SOCAL Range Complex, and Jacksonville Range Complex onboard one frigate, one cruiser, and seven destroyers. Preliminary analysis of the proof of concept data is ongoing. The Navy is also working to finalize the data collection process for use during the next phase of the study. While data was collected as part of this proof of concept phase, those data are not fairly comparable because protocols were being changed and assessed, nor are those data statistically significant. Therefore, it is improper to use these data to draw any conclusions on the effectiveness of Navy Lookouts at this time.

Comment 37: NRDC *et al.* suggested the use of dedicated aerial monitoring for all Navy explosive activities using time-delay firing devices and/or all activities involving explosives greater than 20 lb net explosive weight.

Response: There are no time-delay devices proposed for use in the Study Area. More importantly, with the existing mitigation, only one species (Dall's porpoise) is expected to be taken by exposure to explosives, and for that species only 4 takes resulting in PTS are expected, leaving very few impacts that could potentially be mitigated. In addition, it is difficult to know what additional value will be added by the aerial observers beyond the existing ship-based observers. When the potential benefits of this measure are considered along with the cost, safety, and impracticality issues laid out in response to Comment 33, NMFS does not believe this measure is warranted.

Comment 38: NRDC *et al.* suggested the use of gliders or other platforms for pre-activity monitoring to avoid significant aggregations of marine mammals.

Response: The development of passive acoustic detectors on gliders and other platforms is still in the research and development stages under funding from the Office of Naval Research and the Navy's Living Marine Resources programs. While promising, many of the various technologies are still being tested and not ready for transition to compliance monitoring where a higher degree of performance is needed. Gliders, even if able to report in real-time or delayed near real-time, would only be able to document the presence of marine mammals, not the distance of the marine mammals from the glider or individual animal movement, and therefore would not be fully effective in supporting mitigation that results in delayed operations or shutdowns. Moreover, gliders would only provide an indication that animals are in the area, but these same animals could easily move substantial distances over the course of just a few hours. In some cases, use of gliders in and around where Navy submarines also operate is an underwater safety hazard to the submarine and to the glider. Gliders and other passive acoustic platforms, therefore, are more appropriate for broad area searches within Navy ranges to document marine mammal seasonal occurrence, but are not practical as a mitigation tool.

Additionally, as noted previously, the higher level effects that shutdowns mitigate (PTS, TTS, and more severe behavioral effects) are already minimal as modeled. Further, in the two previous exercises for which we have reports (2011 and 2015), only two observations of marine mammals occurred when sonar was in operation, suggesting that augmentation of detection capabilities would not necessarily result in fewer exposures to marine mammals. For these reasons, NMFS has not required the use of these additional platforms.

Comment 39: NRDC *et al.* recommended that the Navy comply with underwater detonation and gunnery exercise mitigation measures as set forth in NMFS' 2009 final rule (74 FR 3882; January 21, 2009) for the SOCAL Range Complex.

Response: The commenters do not elaborate on why the mitigation measures for underwater explosives and gunnery exercises—which are unrelated activities—for the SOCAL Range Complex would be more protective than those currently proposed for similar activities in the GOA TMAA Study Area. Moreover, mitigation measures designed for training and testing activities in the SOCAL Range Complex are not directly applicable to GOA activities. Mitigation measures for underwater detonations and gunnery

exercises for GOA are described in the ''Mitigation section'' and regulatory text of this rule. NMFS has determined that these mitigation measures are adequate means of effecting the least practicable adverse impacts on marine mammal species or stocks and their habitat

Comment 40: NRDC *et al.* recommended avoidance and reduction in the use of timer delays in favor of explosives with positive controls.

Response: There are no time-delay devices proposed for use in the Study Area. Please see Chapter 2 of the GOA FSEIS/OEIS for a detailed description of the action.

Comment 41: NRDC *et al.* recommended application of ship-speed restriction (*e.g.,* of 10 knots) for support vessels and/or other vessels while transiting high-value habitat for baleen whales and endangered species, or other areas of biological significance, and/or shipping lanes.

Response: The Navy typically chooses to run vessels at slower speeds for efficiency to conserve fuel when possible, which may include speeds less than 5 knots or completely stopped for launching small boats, certain tactical maneuvers, target launch, or retrievals of unmanned underwater vehicles, etc. However, some operational requirements mean that Navy vessels must exceed 10 knots due to unique training, testing, or safety requirements for a given event. Further, imposing an artificial speed restriction only on Navy vessels, which represent an extremely small percentage of ship traffic, particularly in areas of high commercial traffic where no other limits exist, could create safety or navigation concerns where Navy vessels are not traveling at speeds consistent with surrounding traffic.

As discussed earlier in this rule in the ''Mitigation'' section and in Section 5.3.2.2 of the GOA FSEIS/OEIS (Physical Disturbance and Strike), the Navy's speed protocol is as follows: While in transit, Navy 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 sighted object or disturbance, including any marine mammal or sea turtle and can be stopped within a distance appropriate to the prevailing circumstances and conditions. Other mitigation measures will be implemented to avoid vessel strikes, such as maneuvering to keep at least 500 yards from whales observed in a vessel's path, and not approaching whales head-on, provided it is safe to do so. The Navy will also be required to report any vessel strike.

Navy ship speed has not been implicated in impacts to marine mammals in the GOA TMAA Study Area. As discussed in the ''Take Request'' section and elsewhere in this rule, there has never been a recorded vessel strike of marine mammals during any training activities in the Study Area. The Navy's proposed actions would not result in any appreciable changes in locations or frequency of vessel activity in the GOA TMAA. The manner in which the Navy has trained would remain consistent with the range of variability observed over the last decade, so neither the Navy nor NMFS anticipate that vessel strikes would occur within the Study Area during training events, and NMFS has not authorized take by ship strike.

While NMFS would never say that a ship strike is absolutely impossible where vessels are in use, the probability here given historical data in the region and the comparatively small number of vessels is considered to so small as to be discountable. Therefore, ship speed restrictions would not be expected to reduce adverse impacts on marine mammal species or stocks and their habitat in any measurable manner. When this is coupled with the operational challenges of reducing speed (navigational and safety hazards or training impacts), the measure is not warranted.

Comment 42: NRDC *et al.* recommended application of mitigation prescribed by state regulators, by the courts, by other navies or research centers, or by the U.S. Navy in the past or in other contexts.

Response: NRDC did not mention any specific measures and therefore this recommendation cannot be evaluated in the context of the least practicable adverse impact standard. NMFS and the Navy worked together on developing a comprehensive set of mitigation measures to reduce the impacts from Navy training and testing activities on marine mammal species or stocks and their habitat. During the process of developing mitigation measures, NMFS and the Navy considered all potentially applicable mitigation measures. Evaluation of past and present Navy mitigation measures, alternative mitigation measures, and mitigation measures of foreign navies is discussed in Chapter 5 of the GOA FSEIS/OEIS. As discussed in the Mitigation section, NMFS has determined that the mitigation measures required by this rule are adequate means of effecting the least practicable adverse impacts on marine mammal 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.

Comment 43: NRDC *et al.* recommended avoidance of fish spawning grounds and of important habitat for fish species potentially vulnerable to significant behavioral change, such as wide-scale displacement within the water column or changes in breeding behavior.

Response: NMFS considered impacts to marine mammal prey species as a component of marine mammal habitat. Please see the ''Marine Mammal Habitat'' section of the proposed rule, which included an extensive discussion of the potential impact of the Navy's activities on fish. In summary, long-term consequences to fish populations are not expected. Impacts to fish spawning grounds and habitat use are also considered under the Magnuson-Stevens Fishery Conservation and Management Act as it relates to Essential Fish Habitat (EFH). The effect of the Navy's activities on threatened and endangered fish was also addressed in NMFS' Biological Opinion, which concluded that the Navy's activities would not reasonably be expected to reduce appreciably the likelihood of the survival and recovery of any listed fish species.

Section 5.3.1.1.11 of the GOA FSEIS/OEIS (Avoiding Marine Species Habitats and Biologically Important Areas) discusses habitat avoidance. Section 3.6 of the GOA FSEIS/OEIS (Fish) provides the effects determinations on fish. As noted in Section 3.6 of the GOA FSEIS/OEIS, the current science regarding behavioral impacts to fish from sonar is that the potential for effects within the near field (within few tens of meters of the source), intermediate, or far distances is low (Popper *et al.,* 2014). For explosives, the potential for behavioral effects is high within a few tens of meters from the source, moderate to high within intermediate distances (hundreds of meters from the source), and low within the far field (thousands of meters from the source) (Popper *et al.,* 2014). Therefore, the type of wide-scale displacement being described by the commenter is unlikely to occur based on the current state of the science.

In short, NMFS does not anticipate serious, focused, or long-term effects on any species of fish, especially in the context of their importance to marine mammal species or stocks and their habitat. Therefore, NMFS does not expect the effects of Navy activities on marine mammal prey to result in effects on feeding that would have negative

energetic impacts on individuals that would be expected to negatively affect reproductive success or survivorship. NRDC did not recommend protection of any particular areas, rendering this recommendation difficult to assess. NMFS has described in responses to other comments the practicability concerns associated with avoiding training activities during certain areas and times. When the limited likelihood of reducing adverse effects on marine mammal species or stocks is considered in combination with the practicability challenges of implementing the recommendation, NMFS finds that the measure is not warranted.

Comment 44: NRDC *et al.* recommended evaluating before each multi-unit exercise whether reductions in sonar use are possible, given the readiness status of the units involved.

Response: The Navy uses active sonar at the lowest practicable source level consistent with mission requirements. See Section 5.3.3.1.3 of the GOA FSEIS/OEIS (Reducing Sonar Source Levels and Total Number of Hours) for more information.

Comment 45: NRDC *et al.* recommended dedicated research and development of technology to reduce impacts of active acoustic sources on marine mammals.

Response: The Navy has provided a significant amount of funding for marine mammal research. For example, from 2004 to 2012, the Navy provided over $230 million for marine species research and currently sponsors 70 percent of all U.S. research concerning the effects of human-generated sound on marine mammals and 50 percent of such research conducted worldwide. The Navy's research and development efforts have significantly improved our understanding of the effects of Navy-generated sound in the marine environment. These studies have supported the modification of acoustic criteria to more accurately assess behavioral impacts to beaked whales and the thresholds for auditory injury for all species, and the adjustment of mitigation zones to better avoid injury. In addition, Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and non-governmental conservation organizations in collecting, evaluating, and modeling information on marine resources. Navy scientists work cooperatively with other government researchers and scientists, universities, industry, and nongovernmental conservation organizations in collecting, evaluating, and modeling information on marine resources. Further, the adaptive management process required by this rule regularly considers and evaluates the development and use of new science and technologies for Navy applications. For additional information on the Navy's marine mammal monitoring efforts, see *http://www.navymarinespeciesmonitoring.us/*. For the Navy's Living Marine Resources Applied Research Program see *http://www.lmr.navy.mil.* For the Office of Naval Research's Marine Mammals and Biology Basic Research Program see *http://www.onr.navy.mil/Science-Technology/Departments/Code-32/All-Programs/Atmosphere-Research-322/Marine-Mammals-Biology.aspx.*

Comment 46: NRDC *et al.* recommended establishment of a plan and a timetable for maximizing synthetic training in order to reduce the use of active sonar training.

Response: Section 5.3.3.1.2 of the GOA FSEIS/OEIS (Replacing Training with Simulated Activities) discusses simulated activities. As described in the GOA FSEIS/OEIS, the Navy currently uses computer simulation for training whenever possible. Computer simulation can provide familiarity and complement live training and testing; however, it cannot provide the fidelity and level of training necessary to prepare naval forces for deployment. The Navy is required to provide a ready and capable force. In doing so, the Navy must operationally test major platforms, systems, and components of these platforms and systems in realistic combat conditions before full-scale production can occur. Substituting simulation for live training and testing fails to meet the Navy's statutory requirement to properly prepare forces for national defense.

Comment 47: NRDC *et al.* recommended prescription of specific mitigation requirements for individual classes (or sub-classes) of testing and training activities, in order to maximize mitigation given varying sets of operational needs.

Response: The Navy and NMFS have already developed mitigation requirements by activity type. Chapter 5 of the GOA FSEIS/OEIS and the ''Mitigation'' section of this final rule discuss these mitigation measures. NMFS has determined that the mitigation measures contained in this rule are adequate means of effecting the least practicable adverse impacts on marine mammal 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.

Comment 48: NRDC *et al.* recommended timely, regular reporting to NOAA, state coastal management authorities, and the public to describe and verify use of mitigation measures during testing and training activities.

Response: NMFS has long required the Navy to submit timely, regular reports regarding the use of mitigation measures during training and testing activities. Section 3.8.5 (Summary of Observations During Previous Navy Activities) provides the results from regular reporting that has occurred since 2006. These reports are publically available at the Navy Web site *(http://www.navymarinespeciesmonitoring.us/*) and at the NMFS Office of Protected Resources Web site (*www.nmfs.noaa.gov/pr/permits/incidental/military.htm*). Navy reporting requirements, including exercise and monitoring reporting, are described in the ''Monitoring'' and ''Reporting'' sections of this final rule and in Section 5.5 of the GOA FSEIS/OEIS (Monitoring and Reporting).

Comment 49: NRDC *et al.* and other commenters recommended that the Navy agree to additional clean-up and retrieval of discarded debris and expended materials associated with its proposed activities.

Response: The Navy conducted a full analysis of the potential impacts of military expended materials on marine mammals and will implement several mitigation measures to help avoid or reduce those impacts. As presented in the 2011 GOA Final EIS/OEIS (Section 3.2 Expended Materials), no biologically meaningful impacts related to expended materials would occur as a result of the proposed action and the way those materials are used. There are numerous studies involving the fate of expended munitions, including locations where the expended materials are much more concentrated and have been in place for many decades. Those studies do not indicate there is any significant impact on the environment or the sea life living in proximity to those materials.

The Navy has standard operating procedures in place to reduce the amount of military expended materials to the maximum extent practical, including recovering targets and associated parachutes (see Section 5.1 of the GOA FSEIS/OEIS (Standard Operating Procedures).

Effects Analysis/Takes

Comment 50: The Commission recommended that NMFS require the Navy to request the total numbers of model-estimated Level A harassment

and mortality takes rather than reducing the estimated numbers of Level A harassment and mortality takes based on the Navy's proposed post-model analysis. Other commenters, including NRDC *et al.,* were also critical of the Navy's post-model analysis, claiming that post-model adjustments in takes resulted in underrepresented total takes. NRDC *et al.* and other commenters requested further explanation of, or more information on, the post-model reduction process. Both the Commission and NRDC *et al.* expressed concern with observer effectiveness in the Navy's development of mitigation effectiveness scores or g(0) values.

Response: See Section 3.8.3.1.6 (Behavioral Reactions) of the GOA FSEIS/OEIS for the discussion of the science regarding the avoidance of sound sources by marine mammals. With regard to concerns over long term consequences, Section 3.8.3.1.3. (Long-Term Consequences to the Individual and the Population) and Section 3.8.5 (Summary of Observations During Previous Navy Activities) in the GOA FSEIS/OEIS provide a discussion on this topic and the reasons why the Navy does not expect marine mammals to abandon important habitat on a long-term or permanent basis. In addition, the Post-Model Quantitative Analysis of Animal Avoidance Behavior and Mitigation Effectiveness for GOA Training Activities Technical Report, available at *http://www.goaeis.com,* provides additional details regarding how the avoidance and mitigation factors were used and provides scientific support from peer-reviewed research. A comprehensive discussion of the Navy's quantitative analysis of acoustic impacts, including the post-model analysis to account for mitigation and avoidance, is also presented in Chapter 6 of the LOA application.

NMFS believes that the post-modeling analysis is an effective method for quantifying the implementation of mitigation measures to reduce impacts on marine mammals and the science regarding the avoidance of sound sources by marine mammals which cannot be captured within the modeling process itself, and that the resulting exposure estimates are, nevertheless, a conservative estimate of impacts on marine mammals from the Navy's proposed activities. As explained in the above-referenced documents, as part of the post-modeling analysis the Navy reduced some predicted Level A (PTS) exposures based on the potential for marine mammals to be detected and mitigation implemented, and the potential for marine mammals to avoid a sound source. Given this potential, not taking into account some possible reduction in Level A exposures would result in a less realistic, overestimation of possible Level A harassment takes, as if there were no mitigation measures implemented. For example, with respect to mitigation effectiveness, the period of time between clearing the impact area of any non-participants or marine mammals and weapons release is on the order of minutes, making it highly unlikely that a marine mammal would enter the mitigation zone. Information provided in Section 3.8.3.1.8 (Implementing Mitigation to Reduce Sound Exposures) of the GOA FSEIS/OEIS indicates how much of a reduction each factor represents for specific activities. As explained in the documents referenced above, the adjustments move a percentage of the model predicted Level A (PTS) effects at close range to more likely behavioral effects (Level B harassment) and do not conclude that all modeled mortalities or non-PTS injuries will be avoided. This process represents peer-reviewed and accepted scientific process.

The assignment of mitigation effectiveness scores and the appropriateness of consideration of sightability using detection probability, g(0), when assessing the mitigation in the quantitative analysis of acoustic impacts is discussed in the GOA FSEIS/OEIS (Section 3.8.3.1.8, Implementing Mitigation to Reduce Sound Exposures). Additionally, the activity category, mitigation zone size, and number of Lookouts are provided in the proposed rule (81 FR 9950, 9978–87; February 26, 2016) and GOA FSEIS/OEIS (Section 5, Tables 5.3–2 and 5.4–1). In addition to the information already contained within the GOA FSEIS/OEIS, the Post-Model Quantitative Analysis of Animal Avoidance Behavior and Mitigation Effectiveness for GOA Training Activities Technical Report (*http://www.goateis.com*) and Chapter 6 of the Navy's LOA application describe the process for the post-modeling analysis in further detail. There is also information on visual detection leading to the implementation of mitigation in the annual exercise reports provided to NMFS and briefed annually to NMFS and the Commission. These annual exercise reports have been made available and can be found at *http://www.navymarinespeciesmonitoring.us/* in addition to *http://www.nmfs.noaa/pr/permits/incidental.*

The Navy is in the process of assessing Lookout effectiveness at detecting marine mammals during Navy exercises. Lookouts will not always be effective at avoiding impacts on all species. However, Lookouts are expected to increase the overall likelihood that certain marine mammal species and some sea turtles will be detected at the surface of the water, when compared to the likelihood that these same species would be detected if Lookouts are not used. The continued use of Lookouts contributes to helping reduce potential impacts on these species from training and testing activities. Results from the Lookout effectiveness study will be reviewed and any recommendations for improving Lookout effectiveness will be considered at that time. In summary, NMFS and the Navy believe that consideration of marine mammal sightability and activity-specific mitigation effectiveness is appropriate in the Navy's quantitative analysis in order to provide decision makers a reasonable assessment of potential impacts from the Navy's proposed activities.

Comment 51: The Commission commented on possible errors in the take tables for Dall's and harbor porpoise provided in the Navy's GOA DSEIS/OEIS, LOA application, and Pacific Navy Marine Species Density Database GOA Technical Report (U.S. Department of the Navy, 2014) that includes the actual modeled data. The Commission suggested one possible explanation that the Navy used the behavioral response functions (BRF_1(for low-frequency cetaceans) and BRF_2 (for mid- and high-frequency cetaceans—excluding beaked whales and harbor porpoises—and pinnipeds)) from Finneran and Jenkins (2012) without updating them with the new weighted TTS thresholds.

Response: NMFS notes that the final authorized take estimates for Dall's porpoises changed slightly from what was presented in the GOA DSEIS/OEIS based on consideration of NMFS' new Guidance. However, the take estimates contained in the Navy's LOA application and GOA DSEIS/OEIS were not in error for Dall's and harbor porpoise. Most of the differences in takes between the two species can be directly tied to the differences in both species-specific densities as well as how that density was distributed within the GOA TMAA (U.S. Department of the Navy, 2014). Basically, Dall's porpoise density is higher than harbor porpoise and spread by strata over all of the GOA TMAA. Based on how acoustic impact modeling was done for the GOA TMAA (U.S. Department of the Navy, 2015), more Dall's porpoise would conceivably be exposed to sonar training events at closer range than harbor porpoise with resulting higher Dall's porpoise potential takes. Harbor porpoises on the

other hand have a documented coastal and at most a limited on shelf occurrence which is reflected in the harbor porpoise densities for the GOA TMAA (U.S. Department of the Navy, 2014). These harbor porpoise density areas are sufficiently distant from likely Navy sonar training as reflected in the modeling areas used (U.S. Department of the Navy, 2015) that only a limited number of behavioral exposures could occur.

Comment 52: The Commission recommended that NMFS require the Navy to: (1) Describe the upper limit of BRF1 and BRF2, including whether it assumed a 1-sec ping for all sources; (2) explain how 0 TTS and up to 7,000 behavioral takes were model-estimated for harbor porpoises; (3) adjust BRF1 and BRF2 with appropriate K and A parameters based on the basement parameter and the weighted TTS thresholds; and (4) recalculate its behavioral take estimates for all marine mammals exposed to acoustic sources based on those revised BRFs.

Response: The Navy has described the derivation of the BRF in Section 3.8.3.1.5 (Behavioral Responses) of the GOA FSEIS/OEIS and in Finneran and Jenkins (2012). The upper end of the BRFs (at levels approaching 100 percent probability of response) are not correlated or anchored at any TTS threshold. The values used in the BRFs are based on correlations of behavioral reactions with highest received sound pressure level from the three sources of data discussed in Finneran and Jenkins (2012). The ping lengths used within the Navy's model to assess potential impacts are representative of the different sonars and modalities and are not necessarily one second. The predicted higher order effect (*i.e.* TTS over behavioral) is what is reported in the impact analysis; however, it is important to note that both TTS and behavioral harassment are considered Level B under MMPA.

After consideration of the frequency weighting, the functional TTS threshold for high frequency cetaceans (which includes both harbor porpoise and Dall's porpoise) at 3.5 kHz is a sound exposure level of 169 dB re 1μPa^2·s. For harbor porpoises the behavioral threshold is a step function of sound pressure level 120 dB re 1μPa; the effect is predicted based on the loudest received ping regardless of individual ping duration or the number of pings received. From a SQS–53 with a nominal source level of 235 dB re 1μPa, the range to 169 dB re 1μPa^2·s varies with ping duration and the number of pings received by an animal, but is on the order of a few kilometers. On the other hand, the range to the 120 dB re 1μPa behavioral threshold from a SQS–53 source can be greater than 100 km. The GOA TMAA itself, where Navy activities are modeled/analyzed, contains very low to no harbor porpoise densities (0.0000 to 0.0259 animals/km^2) and is greater than 50 km from areas on the continental shelf that contain higher densities of harbor porpoise. Based on the range to TTS versus behavioral responses, and the fact that sonar training activities within the GOA TMAA are greater than 50 km from harbor porpoise habitat, 7,000 predicted behavioral responses and no TTS is a valid result. Behavioral response for Dall's porpoise is based on BRF_2 which predicts a decreasing probability of response to a basement level of 120 dB re 1μPa. Densities of Dall's porpoise within the TMAA are up to 0.1854 animals/km^2. Therefore, the sonar sources within the proposed activities would be within range to TTS for Dall's porpoise.

NMFS does not agree with the Commission that the Navy should adjust behavioral response functions based on TTS thresholds as there is no consistent correlation between sound levels known to induce hearing loss and those with a specific probability of behavioral reaction. Therefore, the take estimates in the Navy's GOA SEIS/OEIS and LOA application are correct based on species densities used, species occurrence distribution within the TMAA, and modeling results.

Comment 53: The Commission recommended that NMFS require the Navy to round its takes based on model-estimated takes to the nearest whole number or zero in all of its take tables.

Response: In April 2011 at the start of Phase II process, the Navy and NMFS (as a cooperating agency for NEPA purposes) had a meeting at NMFS headquarters and agreed to the rounding process presented in the GOA FSEIS/OEIS, and other Phase II EISs. The final modeling numbers presented in the GOA FSEIS/OEIS were rounded down at the sub-total stage so those totals in the GOA SEIS/OEIS based on the various effect criteria and the totals presented in the LOA application based on Level A and Level B harassment as grand totals would sum consistently. Specifically, all fractional post-processed exposures for a species/stock across all events within each category sub-total (Impulse and Non-Impulse) are summed to provide an annual total predicted number of effects. The options for rounding had been to round up, to round down, or to manually change the conventionally rounded numbers so that the sub-total and grand totals matched. Given the conservative factors in the modeling (described in the GOA FSEIS/OEIS Section 3.8.3.1.6.3 (Navy Acoustic Effects Model, sub-section *Model Assumptions and Limitations*)) that produce an overestimate in the predicted effects, using the Microsoft Excel rounddown function at this final stage of number presentation was considered to be the most consistent and representative means of producing the final numbers presented in the analyses. More importantly, the differences in alternative rounding procedures would be negligible and would have no consequences related to the analysis of impacts to populations of marine mammals or the likely long term consequences resulting from the proposed action.

Comment 54: NRDC *et al.* commented that NMFS failed to properly analyze the potential for serious injury and mortality, particularly with regard to sonar-related injury and mortality (*i.e.,* strandings) during the Navy's use of mid-frequency active sources and other sources. The commenters cited several stranding events (*e.g.,* Bahamas, 2000; Washington State, 2003) that they assert occurred coincident with military mid-frequency sonar use. NRDC *et al.* commented that these events have involved beaked whales, minke whales, *kogia,* and harbor porpoises, and states that most beaked whale casualties are likely to go undetected.

Response: NMFS uses the best available science to analyze the Navy's activities. The ''Stranding and Mortality'' section of the proposed rule (81 FR 9950, 9970–76; February 26, 2016) summarized the stranding events referenced in NRDC *et al.'s* comment, including the association between stranding events and exposure to MFAS. Also, see the GOA FSEIS/OEIS Section 3.8.3.1.2.8 (Stranding) and the U.S. Department of the Navy (2013c) ''Marine Mammal Strandings Associated with U.S. Navy Sonar Activities'' technical report available at *http://www.goaeis.com.* The modeling of acoustic effects takes into consideration all applicable environmental factors and all applicable sound sources to predict the likely effects to beaked whales and all other species. Please also see Southall *et al.* (2007), Finneran and Jenkins (2012), and the GOA FSEIS/OEIS Section 3.8.3.1.4.1 (Frequency Weighting) to understand the implementation of frequency weighting as it applies to the analysis of effects from mid-frequency and high frequency sound sources.

The environmental conditions in the GOA TMAA Study Area and the types of activities proposed in the GOA

FSEIS/OEIS have no relationship to those present in the Bahamas incident fourteen years ago in unique and warm tropical waters. The environmental conditions otherwise differentiating the Atlantic tropical Bahamas environment present in 2000 from the GOA TMAA Study Area include the unique bathymetry of the Bahamas Providence Channels that are steep sided, narrow, and very deep—ranging from approximately 2,000 to 12,000 in depth. On that day in 2000 in the Bahamas, there was also a 200-meter-thick layer of near constant water temperature, calm seas, as well as the presence of beaked whales.

With regard to the harbor porpoise strandings in Washington State (2003), NMFS has since determined that these strandings were unrelated to Navy sonar use. There was a lack of evidence of any acoustic trauma among the harbor porpoises, and the identification of probable causes (*e.g.,* entanglement in a fishing net, disease processes) of stranding or death in several animals supports the conclusion that the harbor porpoise strandings were unrelated to the sonar activities by the USS SHOUP. Refer to the discussion in the ''Stranding and Mortality'' section of the proposed rule (81 FR 9950, 9970–79; February 26, 2016) and the GOA FSEIS/OEIS Section 3.8.3.1.2.8 (Stranding) and the U.S. Department of the Navy (2013c) ''Marine Mammal Strandings Associated with U.S. Navy Sonar Activities'' technical report (available at *http://www.goaeis.com*) for a discussion of other previous strandings and note that the other stranding events in this comment did not occur in, and were not associated with, the GOA TMAA Study Area and did not involve any of the training scenarios proposed for the GOA TMAA Study Area.

Lastly, while not referenced by the commenters and not related to active sonar exposure, NMFS considered an investigation into a long-finned pilot whale mass stranding event at Kyle of Durness, Scotland, on July 22, 2011 (Brownlow *et al.,* 2015). The investigation considered unexploded ordnance detonation activities at a Ministry of Defense bombing range, conducted by the Royal Navy prior to and during the strandings, as a plausible contributing factor in the mass stranding event. While Brownlow *et al.* (2015) concluded that the serial detonations of underwater ordnance were an influential factor in the mass stranding event (along with presence of a potentially compromised animal and navigational error in a topographically complex region) they also suggest that mitigation measures—which included observations from a zodiac only and by personnel not experienced in marine mammal observation, among other deficiencies—were likely insufficient to assess if cetaceans were in the vicinity of the detonations. The authors also cite information from the Ministry of Defense indicating ''an extraordinarily high level of activity'' (*i.e.,* frequency and intensity of underwater explosions) on the range in the days leading up to the stranding.

The GOA FSEIS/OEIS provides an analysis of potential impacts occurring in the GOA TMAA Study Area. While most of the world's coastlines lack coverage by a stranding network, the Navy's analysis of impacts has focused on scientific data collected in and around the Navy range complexes, which are the proposed locations for the continuation of historically occurring training and testing activities including the use of sonar. A summary of the compendium of the research in that regard is presented in the GOA FSEIS/OEIS in Section 3.8.5 (Summary of Observations During Previous Navy Activities). Unlike the rest of the world's oceans, there has not been an absence of observation where the U.S. Navy has been routinely training and testing for years. In particular, and as ongoing for approximately the last 8 years, the Navy, NMFS, and an independent group of scientists have been engaged in implementing a comprehensive monitoring program and associated research that includes monitoring before, during, and after Navy activities on U.S. Navy range complexes. In short, the research and monitoring associated with Navy training and testing activities makes the Navy range complexes different than the remainder of the world's oceans.

There have been no mortalities or strandings associated with Navy sonar use during the past approximately 8 years of monitoring, but to the contrary there has been overwhelming evidence from research and monitoring indicating the continued presence or residence of individuals and populations in Navy range complexes and no clear evidence indicating long-term effects from Navy training and testing in those locations. For example, photographic records spanning more than two decades demonstrated re-sightings of individual beaked whales (from two species: Cuvier's and Blainville's beaked whales), suggesting long-term site fidelity to the area west of the Island of Hawaii where intensive swept-channel exercises historically occurred (McSweeney *et al.,* 2007). In the most intensively used training and testing ranges in the Pacific, photo identification of animals associated with the SOCAL Range Complex have identified approximately 100 individual Cuvier's beaked whale individuals with 40 percent having been seen in one or more prior years, with re-sightings up to 7 years apart (Falcone and Schorr, 2014). Data from visual surveys documenting the presence of Cuvier's beaked whales for the ocean basin west of San Clemente Island (Falcone *et al.,* 2009; Falcone and Schorr, 2012, 2014; Smultea and Jefferson, 2014) is also consistent with concurrent results from passive acoustic monitoring that estimated regional Cuvier's beaked whale densities were higher than indicated by NMFS' broad scale visual surveys for the United States west coast (Hildebrand and McDonald, 2009). Falcone and Schorr (2012) suggested that these beaked whales may have population sub-units with higher than expected residency to the Navy's instrumented Southern California Anti-Submarine Warfare Range in particular. For over three decades, this ocean area west of San Clemente has been the location of the Navy's instrumented training range and is one of the most intensively used training and testing areas in the Pacific, given the proximity to the Naval installations in San Diego. In summary, the best available science indicates the Navy's continued use of Navy range complexes have not precluded beaked whales from also continuing to inhabit areas where sonar use has been occurring, and there is no evidence to suggest that undocumented mortalities are occurring in the GOA TMAA or on the range complexes where the U.S. Navy routinely conducts training and testing activities.

In the GOA FSEIS/OEIS, the sensitivity of beaked whales is taken into consideration both in the application of Level B harassment thresholds and in how beaked whales are expected to avoid sonar sources at higher levels. No beaked whales were predicted in the acoustic analysis to be exposed to sound levels associated with PTS, other injury, or mortality (note: There is no data from which to develop or set a mortality criterion and there is no evidence that sonar can lead to a direct mortality due to lack of a shock wave). After years of the Navy conducting similar activities in the Study Area without incident, NMFS does not expect strandings, injury, or mortality of beaked whales or any other species to occur as a result of training activities. Additionally, through the MMPA rulemaking (which allows for adaptive management), NMFS and the Navy will determine the appropriate

way to proceed in the event that a causal relationship were to be found between Navy activities and a future stranding.

NMFS has considered the body of science regarding strandings that have occurred coincident with Naval training exercises, paying particular attention to the few instances where scientific review has concluded that the exercises may have had a causal contribution. In short, the strandings that have been more conclusively linked to Naval activities in some way have largely been associated with certain environmental and/or operational factors that the Navy has addressed through preventative monitoring measures to be implemented when the factors may be present in an operational area. In general, there seems to be a low probability that strandings could occur in any Navy training areas, and in the GOA this probability is considered discountable because none of the complicating environment factors are present, because of short duration and comparatively low volume of potential tactical sonar use, and because of the historical absence of Navy-associated strandings in the area. NMFS and the Navy have adequately considered the science on this topic and applied it to actions where appropriate.

Comment 55: NRDC *et al.* commented that NMFS dismisses the leading explanation about the mechanism of sonar-related injuries—that whales suffer from bubble growth in organs that is similar to decompression sickness, or ''the bends'' in human divers—as one of several controversial hypotheses. They cite numerous papers in support of this explanation.

Response: NMFS explicitly addresses acoustically mediated bubble growth in the Potential Effects section of the proposed rule. Additionally, please see the Navy's GOA FSEIS/OEIS Section 3.8.3.1.2.1 (Direct Injury) in general and specifically Section 3.8.3.1.2.2 (Nitrogen Decompression) where the latest scientific findings have been presented. As noted above, NMFS and the Navy have reviewed the body of science on this topic and applied it, where applicable, to the proposed action.

Comment 56: Citing several references, NRDC *et al.* commented that the Navy and NMFS failed to adequately assess the impacts of stress on marine mammals.

Response: NMFS fully considered in the proposed rule the potential for physiological responses, particularly stress responses, that could potentially result from exposure to MFAS/HFAS or underwater explosive detonations (see *Stress Response* in the ''Potential Effects'' section of the proposed rule). NMFS' analysis identifies the probability of lethal responses, physical trauma, sensory impairment (permanent and temporary threshold shifts and acoustic masking), physiological responses (including stress responses), behavioral disturbance (that rises to the level of harassment), and social responses (effects to social relationships) that would be classified as a take and whether such take would have a negligible impact on such species or stocks. This analysis is included in the Analysis and Negligible Impact Determination in this final rule, and results of the analysis of physiological stress responses are summarized below. The Navy's analysis also considered secondary and indirect impacts, including impacts from stress (see the GOA FSEIS/OEIS Section 3.8 (Marine Mammals)). See for example, Section 3.8.3.1.2.5 (Physiological Stress) presenting Rolland *et al.* (2012) and other similar research regarding chronic stressors, and Section 3.8.3.1.3 (Long-Term Consequences to the Individual and the Population). For a discussion of biotoxins, see Section 3.8.2.4 (General Threats).

The referenced studies of North Atlantic right whales (*e.g.,* Rolland *et al.,* 2012) impacted by chronic noise were cited and considered in the Navy's and NMFS' analysis, as well as similar studies such as Hatch *et al.* (2012) and Parks *et al.* (2007) (see Section 3.8.3.1, Acoustic Stressors in the GOA FSEIS/OEIS; see ''Potential Effects of Specified Activities'' on Marine Mammals in the proposed rule (81 FR 9950, 9961–78; February 26, 2016)). Similar findings for blue whales from the Pacific (Melcon *et al.,* 2012) were also considered for mysticetes, as well as similar findings for other marine mammal groups with regard to potential chronic stressors. Note, however, that these studies (and similar studies from the Pacific Northwest such as Williams *et al.* (2013)) involve chronic noise resulting from the pervasive presence of commercial vessels. The Navy activities in the GOA TMAA Study Area involving active sonar or underwater detonations are infrequent and short-term. Even though an animal's exposure to active sonar may be more than one time, the intermittent nature of the sonar signal, its low duty cycle, and the fact that both the vessel and animal are moving provide a very small chance that exposure to active sonar for individual animals and stocks would be repeated over extended periods of time. Since the impact from noise exposure and the Navy's training events in general should be transitory given the movement of the participants, any stress responses should be short in duration and have less than biologically significant consequences. Consequently, NMFS has determined that the Navy's activities in the GOA TMAA Study Area do not create conditions of chronic, continuous underwater noise and are unlikely to lead to habitat abandonment or long-term hormonal or physiological stress responses in marine mammals.

The opinion on how stress affects individuals and more importantly marine mammal stocks or populations is still under scientific review and research. The Navy via the ONR basic research program is a leading sponsor of ongoing stress related studies. These include but are not limited to: Development and Validation of a Technique for Detection of Stress and Pregnancy in Large Whales (multiple academic performers); Validating the Novel Method of Measuring Cortisol Levels in Cetacean Skin by Use of an ACTH Challenge in Bottlenose Dolphins (Aarhus University); Measuring and Validating Levels of Steroid Hormones in the Skin of Bottlenose Dolphins (*Tursiops truncatus*) (Aarhus University); Quantifying Stress in Marine Mammals: Measuring Biologically Active Cortisol in Cetaceans and Pinnipeds (University of Toronto Scarborough); Behavioral and Physiological Response of Baleen Whales to Ships and Ship Noise (multiple performers); Stress Hormones and their Regulation in a Captive Dolphin Population (National Marine Mammal Foundation); Molecular Indicators of Chronic Stress in a Model Pinniped—the Northern Elephant Seal (National Marine Mammal Foundation); Variability of Hormonal Stress Markers and Stress Responses in a Large Cross-Sectional Sample of Elephant Seals (Sonoma State University); Development of Novel Noninvasive Methods of Stress Assessment in Baleen Whales (New England Aquarium); Understanding the Onset of Health Impacts Caused by Disturbance (University of Aberdeen); Tag-based Heart Rate Measurements of Harbor Porpoises During Normal and Noise-exposed Dives to Study Stress Responses (Aarhus University); Markers of Decompression Stress of Mass Stranded/Live Caught and Released vs. Single Stranded Marine Mammals (Woods Hole Oceanographic Institution); Investigation of the Molecular Response in Blood and Skin of Belugas in Response to ''Stressors'' (Sea Research Foundation, Inc.); Assessing Stress Responses in Beaked and Sperm Whales in the Bahamas

(New England Aquarium/Bahamas Marine Mammal Research Organization); and Determining Baseline Stress-Related Hormone Values in Large Cetaceans (Baylor University). This body of work is ongoing and will be supplemented by new studies in future years.

NMFS and the Navy have reviewed the large body of science on this issue and summarized the more salient articles in the proposed rule and the FSEIS/OEIS. We address the known risks of stress impacts and highlight the need for more work on the subject, while acknowledging that there are no specific actions (beyond the sorts of mitigation already included) that would be expected to effectively reduce these risks.

Comment 57: NRDC *et al.* commented that the Navy would release a host of toxic chemicals, hazardous materials and waste into the marine environment that could pose a threat to marine mammals over the life of the range. They also commented that the Navy plans to abandon cables, wires, and other items including parachutes that could entangle marine wildlife.

Response: Please see the 2011 GOA FEIS/OEIS for analysis of impacts other than acoustic stressors. The GOA FEIS/OEIS analysis concluded that most of the material expended during training would be inert and degrade slowly. A small amount of chemicals would be considered hazardous—predominantly residual explosives, which break down slowly—but any small amount of leaching sediment would be dispersed quickly by the currents. The GOA FSEIS/OEIS analysis concluded that the material expended during training would not result in water or sediment toxicity, and that no adverse effects on marine organisms would be expected. Please see the GOA FSEIS/OEIS Section 3.2 (Expended Material) for details in this regard.

Comment 58: NRDC *et al.* commented that NMFS failed to evaluate and authorize vessel strike with large cetaceans or the potential harassment of harbor porpoises by vessel noise. NRDC *et al.* further commented that not only are whales at risk of being struck by Navy vessels in the normal course of activities, but also that the use of active acoustics exacerbates the potential for collision. NRDC *et al.* comments that the failure to examine the risk of ship strikes is particularly troubling given the Large Whale UME underway in the Western Gulf of Alaska.

Response: Please see Section 3.8.2.4 (General Threats) of the GOA FSEIS/OEIS for a discussion of the potential for ship strike in general. Individual species-specific analyses in Section 3.8.2 (Affected Environment) of the FSEIS/OEIS also discuss the threat of ship strikes on a species level. To date, there has not been a Navy ship strike in the GOA over 20 years of infrequent use of the GOA TMAA. Navy ships always move at the safest practical speed based on a given training objective and schedule, operational need, and safety of navigation. The Navy has had a longstanding policy that requires ships to report any ship strikes to NMFS. With respect to the Navy's proposed activities for 2017 to 2022, there is no large increase in training activities proposed over and above historic use. Therefore, past real-world results (no strikes) is just as valid, if not more so than speculative modeling.

Navy vessels operate differently from commercial vessels in ways important to the prevention of whale collisions. Surface ships operated by or for the Navy have personnel assigned to stand watch at all times, day and night, when a ship or surfaced submarine is moving through the water (underway). A primary duty of personnel standing watch on surface ships is to detect and report all objects and disturbances sighted in the water that may indicate a threat to the vessel and its crew, such as debris, a periscope, surfaced submarine, or surface disturbance. Per vessel safety requirements, personnel standing watch also report any marine mammals sighted in the path of the vessel as a standard collision avoidance procedure. All vessels use extreme caution and proceed at a safe speed so they can take proper and effective action to avoid a collision with any sighted object or disturbance, and can be stopped within a distance appropriate to the prevailing circumstances and conditions. Further, this rule requires vessels to avoid approaching marine mammals head on and to maneuver to maintain a mitigation zone of 500 yd (457 m) around observed whales and 200 yd (183 m) around all other marine mammals (except bow-riding dolphins), providing it is safe to do so.

The research by Nowacek *et al.* (2004) cited by NRDC *et al.* is discussed in the GOA FSEIS/OEIS in the context of behavioral reactions to vessels and in the GOA FSEIS/OEIS Section 3.8.3.1.2.6 (Behavioral Reactions). Nowacek *et al.* (2004) used an alarm signal purposefully designed to provoke a response from the whales. The signal, which was long in duration, lasting several minutes, was intended to protect the whales from ship strikes. The frequency, duration, and temporal pattern of sound sources affected the whale's responses. The right whales did not respond to playbacks of either right whale social sounds or vessel noise, highlighting the importance of the sound characteristics, species differences, and individual sensitivity in producing a behavioral reaction. Navy activities using sonar would not be used in the same way as the sound source used by Nowacek *et al.* (2004), and similar reactions occurring miles from the sound source are not anticipated.

In addition, there is no scientific basis for the suggestion that animals exposed to sonar would have ''greater susceptibility to vessel strike.'' Navy sonar is used intermittently for short durations, and is not aimed at or designed to be an alarm signal for low frequency mysticetes or other cetaceans. Further, studies where experimental sound source are used have had an extremely different frequency, duration, and temporal pattern of signal presentation from anything used by or proposed for use by the Navy. Of note, and in contrast to the comment's assertion, an equally plausible interpretation of the study is that an active mid-frequency sound source could potentially alert marine mammals to the presence of a Navy vessel and therefore reduce the potential for ship strikes. There has never been any association with Navy sonar use and ship strikes in over 30 years of worldwide Navy ship strike reporting to NMFS. Therefore, it is erroneous to assume Navy sonar use in the GOA TMAA would increase marine mammal vulnerability to Navy ship strike. Further, there has been no indication from more frequent Navy sonar use in other areas of the Pacific outside of the GOA TMAA of significant large whale reactions such that ship strike risk would increase.

Unusual Mortality Events (see ''Strandings in the GOA TMAA'' in the proposed rule (81 FR 9950, 9976; February 26, 2016)) and any ship strikes that have been reported in and outside of the GOA are not from Navy activities. The 2015 GOA strandings discussed in the proposed rule may be correlated with Pacific coast wide toxic algal poisoning. The large whale UME in the GOA is still under investigation, with the causes currently listed as ''undetermined, possible ecological causes.''

In summary, both NMFS and the Navy fully evaluated the potential effects of ship strike. While the possibility of ship strike can never by fully ruled out where vessels are involved, the history and limited use of Navy vessels in the GOA, combined with the training, safety, and mitigation

protocols, makes the probability of a ship strike so small as to be discountable, and no ship strikes are anticipated or authorized in the final rule.

Regarding vessel noise, both NMFS and the Navy have considered, and addressed in the proposed rule and the FSEIS/OEIS, the body of science indicating that harbor porpoises are generally more sensitive to sound exposure than other species, typically avoid human activities at larger distances than other species, and have been documented responding to vessel noise. Because of this, we use a lower behavioral threshold, 120dB, to predict when harbor porpoises will be taken by Level B harassment by Navy's sound sources. We believe that this approach allows for us to fully capture the extent of meaningful effects and take of harbor porpoises resulting from Navy activities.

Comment 59: NRDC *et al.* commented that NMFS does not adequately analyze the potential for and impact of oil spills (the commenters make reference to the Exxon Valdez and Cosco Busan oil spill incidents)., including the potential for collisions between Navy vessels and oil tankers.

Response: The Navy's proposed action would not transport large amounts of oil, as did those ships involved in prior spills in Alaska, or interact with the production or transportation of oil for commercial sale while training in the TMAA. Moreover, the Exxon Valdez spill occurred as a result of improper ship manning and handling, and the Cosco Busan incident that occurred in San Francisco resulted from an impaired pilot. Neither incident is connected to Navy training or testing. Nevertheless, oil spill prevention is a high priority for the Navy. Throughout its spill prevention program, the Navy concentrates on the entire spectrum of oil handling. The Navy maintains in house capability to respond to spills of all sizes. Every ship is equipped with an oil spill kit that is designed to prevent spills from entering the water. Navy activities report oil spills through the Navy chain to the National Response Center. Navy personnel are highly trained in containment and cleanup of spills and equipment is pre-staged worldwide should it be necessary. The Navy conducts periodic training with all response agencies, federal, state, and local. A search of the USCG's National Response Center Annual reports indicates that out of the countless number of reported spills in the state of Alaska, from small amounts of oil sheen to large spills, there have been very few from government vessels (predominately USCG vessels) in Alaska. The probability of a Navy ship oil spill is extremely minimal given standard operating procedures.

Regarding the potential for collision with oil tankers, the Navy does not restrict commercial vessel traffic in the TMAA during exercises but it does publish Notices to Mariners (NTMs) prior to an exercise alerting vessels to the presence of Navy ships for the exercise. While the Navy does not publish daily NTMs, USCG District 17, Juneau, Alaska, communicates any active Navy training activity to shipping vessels through broadcast NTMs on VHF–FM Channel 16 and 22A (Navy 2016. During the exercise, consistent with standard practice for Navy training worldwide, the Navy avoids areas, to the extent practicable, with high concentrations of commercial vessels (*e.g.,* shipping lanes). The Navy has extensive experience and procedures (radar, lookouts, etc.) during training and transit in avoiding commercial vessels, fishing boats, and recreational boats. For instance, in other Pacific range areas, some of which serve as the homeport concentrations for the majority of Navy ships (*e.g.,* San Diego, Pearl Harbor), there have been no such collisions with any commercial shipping vessels. Therefore, the probability of such an incident (Navy-civilian ship strike) in the TMAA is extremely remote, further reduced by the low level of Navy activities (one exercise per year). Furthermore, the actual quantity of Navy surface ships participating in an individual GOA exercise is typically rather small (0–4). These Navy ships are present in the TMAA for only short durations up to 21-days, with shorter periods being more typical (10–14 days).

Comment 60: NRDC *et al.* commented that NMFS' analysis cannot be limited only to direct effects, *i.e.,* effects that occur at the same time and place as the training exercises that would be authorized, but must also take into account the activity's indirect effects. The commenters assert that this requirement is critical given the potential for sonar exercises to cause significant long-term impacts not clearly observable in the short term.

Response: NMFS and the Navy analyzed both direct and indirect effects from Navy training activities. A discussion of potential indirect effects may be found in the proposed rule (81 FR 9950, 9961–78; February 26, 2016) (see ''Potential Effects of Specified Activities on Marine Mammals'' and the ''Habitat'' section) and this final rule (see ''Analysis and Negligible Impact Determination''). As discussed in Section 3.8.3.1.3 (Long-Term Consequences to the Individual and the Population) of the GOA FSEIS/OEIS, the Navy's analysis also considers all potential impacts resulting from exposure to acoustic sources, including indirect effects. With respect to long-term impacts, see the discussion in Section 3.8.3.1.3 of the GOA FSEIS/OEIS (Long-Term Consequences to the Individual and the Population) and the Long-Term Consequences section of this rule. For marine mammals in particular, see the GOA FSEIS/OEIS Section 3.8.4 (Summary of Impacts (Combined Impacts of All Stressors) on Marine Mammals) and Section 3.8.5 (Summary of Observations During Previous Navy Activities), presenting the evidence collected from the intensive monitoring of Navy training and testing at range complexes nationwide since 2006 which provides support for the conclusions that it is unlikely there would be any population level or long-term consequences resulting from the proposed training activities and implementation of this final rule. The scientific authorities presented in the comment (the National Research Council) are discussed in the GOA FSEIS/OEIS, and do not support the contention that there is a link between the use of sonar and any population-level effects. For example, the number of blue whales has been increasing at 3 percent annual rate in the Southern California waters where the most frequent and intensive sonar use occurs in the Pacific (Calambokidis *et al.,* 2009a).

Comment 61: NRDC *et al.* commented that NMFS failed to adequately assess the cumulative impacts of the Navy's activities in its negligible impact determination. More specifically, see the commenters' four comments (62–65) below.

Response: Section 101(a)(5)(A) of the MMPA requires NMFS to make a determination that the take incidental to a specified activity will have a negligible impact on the affected species or stocks of marine mammals, and will not result in an unmitigable adverse impact on the availability of marine mammals for taking for subsistence uses. Neither the MMPA nor NMFS' implementing regulations specify how to consider other activities and their impacts on the same populations. However, consistent with the preamble for NMFS' implementing regulations (54 FR 40338; September 29, 1989), the impacts from other past and ongoing anthropogenic activities are incorporated into the negligible impact analysis via their impacts on the environmental baseline (*e.g.,* as reflected in the density/distribution and

status of the species, population size and growth rate, and ambient noise).

As discussed in the ''Analysis and Negligible Impact Determination'' section of this final rule, Chapter 4 of the GOA FSEIS/OEIS contains a comprehensive assessment of potential cumulative impacts, including analyzing the potential for cumulatively significant impacts to the marine environment and marine mammals. The Navy used the best available science and a comprehensive review of past, present, and reasonably foreseeable actions to develop a robust cumulative impacts analysis. The cumulative impacts analysis focused on impacts that are ''truly meaningful.'' This was accomplished by reviewing the direct and indirect impacts that have the potential to occur on each resource under each of the alternatives. Key factors considered were the current status and sensitivity of the resource and the intensity, duration, and spatial extent of the impacts of each potential stressor. In general, long-term rather than short-term impacts and widespread rather than localized impacts were considered more likely to contribute to cumulative impacts. As required under NEPA, the level and scope of the analysis are commensurate with the potential impacts of the action as reflected in the resource-specific discussions in Chapter 3 of the GOA FSEIS/OEIS. The GOA FSEIS/OEIS considered its activities alongside those of other activities in the region whose impacts are truly meaningful to the analysis.

In addition, NMFS' Biological Opinion concludes that NMFS' proposed rulemaking and LOA and any take associated with activities authorized by the rulemaking and LOA are not likely to jeopardize the continued existence of threatened or endangered species (or species proposed for listing) in the action area during any single year or as a result of the cumulative impacts of a 5-year authorization.

Comment 62: NRDC *et al.* assert that there is a lack of any population analysis or quantitative assessment of long-term effects in the proposed rule.

Response: NMFS and the Navy fully considered potential long-term and population-level effects. Analysis of these effects is presented in the GOA FSEIS/OEIS in Section 3.8.3.1.3 (Long-Term Consequences to the Individual and the Population) and in the ''Analysis and Negligible Impact Determination'' section in this final rule (see *Long-Term Consequences* and *Final Determination* sections). NMFS' assessment is that the Navy training activities involving active sonar or underwater detonations are infrequent and short-term (as a reminder, the GOA TMAA training activities will not occur continuously throughout the year, but rather, for a maximum of 21 days annually). Consequently, the Navy's activities do not create conditions of chronic, continuous underwater noise and are unlikely to lead to habitat abandonment or long-term hormonal or physiological stress responses in marine mammals. Based on the findings from research efforts and monitoring before, during, and after training and testing events across the Navy since 2006, NMFS' assessment is that it is unlikely there would be impacts to populations of marine mammals having any long-term consequences as a result of the proposed continuation of training and testing in the ocean areas historically used by the Navy, including the GOA TMAA Study Area. NMFS concludes that exposures to marine mammal species and stocks due to GOA training activities would result in primarily short-term (temporary and short in duration) and relatively infrequent Level B harassment of most individuals exposed, and not of the type or severity that would be expected to be additive for the portion of the stocks and species likely to be exposed. Level A harassment, of a small degree, could be incurred by no more than 4 Dall's porpoise.

Additionally, NMFS notes that, even in areas where the Navy uses sonar frequently, such as instrumented ranges, marine mammal populations are present, not diminishing, and in some cases, thriving. NMFS and the Navy relied on actual trends in marine mammal populations and the best available science regarding marine mammals, including behavioral response studies and the satellite tracking of tagged marine mammals in areas of higher sonar use.

NMFS has reporting and monitoring data from the Navy on training and testing events occurring around the U.S. since 2006. For example, results from 2 years (2009–2010) of intensive monitoring by independent scientists and Navy observers in Southern California Range Complex and Hawaii Range Complex recorded an estimated 161,894 marine mammals with no evidence of distress or unusual behavior observed during Navy activities. Additional information and data summarized in the GOA FSEIS/OEIS Section 3.8.5 (Summary of Observations During Previous Navy Activities) provide support for the conclusions that it is unlikely there would be any population level or long-term consequences resulting from implementation of this final rule.

Comment 63: NRDC *et al.* commented that NMFS does not consider the potential for acute synergistic effects from multiple Navy activities taking place at one time, or from Navy activities in combination with other actions. As an example, the commenters state that NMFS does not consider the greater susceptibility to vessel strike of animals that have been temporarily harassed or disoriented. The commenters cite a Nowacek *et al.* (2004) study in which exposure to a mid-frequency sound source provoked interruption of foraging dives and the surfacing of five North Atlantic right whales and presumably increased risk of vessel strike.

Response: As presented in the GOA FSEIS/OEIS Section 3.8.3.1.4.2 (Summation of Energy from Multiple Sources) the Navy's and NMFS' analysis and acoustic impact modeling does consider and quantify the potential for additive effects from multiple activities involving acoustic stressors. Unlike the method used previously that modeled acoustic sources individually, the Navy's acoustic effects model (NAEMO) has the capability to run all sound sources within a scenario simultaneously, which accounts for accumulative sound and provides a more realistic depiction of the additive effects from using multiple acoustic sources in spatial and temporal proximity (*i.e.,* the cumulative SEL is a composite of all sources received by the animat) (See Section 3.8.3.1.6.3 (Navy Acoustic Effects Model) of the GOA FSEIS/OEIS). Additionally, Section 3.8.3.1.7 (Marine Mammal Avoidance of Sound Exposures) and the following sub-sections of the GOA FSEIS/OEIS consider likely marine mammal behavior in the analysis of impacts.

In addition, and as explained in response to a previous comment above, there is no scientific basis for the suggestion that animals taken by harassment would have ''greater susceptibility to vessel strike.'' NMFS considered Nowacek *et al.* (2004), cited by the commenters, which is discussed in the GOA FSEIS/OEIS (Section 3.8.3.1.2.6, Behavioral Reactions). Nowacek *et al.* (2004) used an alarm signal purposefully designed to provoke a response from the whales. The signal, which was long in duration, lasting several minutes, was intended to protect the whales from ship strikes. The frequency, duration, and temporal pattern of sound sources affected the whale's responses. The right whales did not respond to playbacks of either right whale social sounds or vessel noise,

highlighting the importance of the sound characteristics, species differences, and individual sensitivity in producing a behavioral reaction. Navy activities using sonar would not be used in the same way as the sound source used by Nowacek *et al.* (2004), and similar reactions occurring miles from the sound source are not anticipated. Of note, and in contrast to the comment's assertion, an equally plausible interpretation of the study is that an active mid-frequency sound source could potentially alert marine mammals to the presence of a Navy vessel and therefore reduce the potential for ship strikes.

Comment 64: NRDC *et al.* commented that the proposed rule makes no attempt to analyze the cumulative and synergistic effects of mortality, injury, masking, energetic costs, stress, hearing loss, or any mechanism of cumulative impact, whether for its proposed training or for its training combined with other activities affecting the same marine mammal species and populations; and NMFS makes no attempt to incorporate the effects of reasonably foreseeable activities impacting the same species and populations into its impact analysis.

Response: Noting our response to Comment 63 regarding the cumulative effects of the Navy activity in combination with other activities, please see the Analysis and Negligible Impact Determination section of this final rule, which addresses all of the combined anticipated impacts from the Navy's GOA activities. Also, see Chapter 4 (Cumulative Impacts) of the GOA FSEIS/OEIS and the response above regarding assessing the impacts of stress on marine mammals. In particular, and to understand the potential for population-level impact, see Section 3.8.5 (Summary of Observations During Previous Navy Activities) of the GOA FSEIS/OEIS. For masking effects see the discussion in Section 3.8.3.1.2.4 (Auditory Masking), and for energetic models, foraging, chronic noise and stress, see the discussion in 3.8.3.1.2.5 (Physiological Stress) in the GOA FSEIS/OEIS. The proposed actions are very limited in time and space and will not constitute ''chronic noise and stress'' analogous or comparable to the citations presented in the comment involving commercial shipping, seismic surveys, or whale watching.

The Navy's acoustic impact modeling does consider and quantify the potential for additive effects from multiple activities involving acoustic stressors by modeling all sound sources within a scenario simultaneously, which accounts for accumulative sound and provides a more realistic depiction of the potential effects of an activity. Further, as explained throughout this rule, NMFS' assessment is that the cumulative impacts of active sonar would be extremely small because the exercises would occur for relatively short periods of time; the sources of active sonar would most often not be stationary; and the effects of any LF/MFAS/HFAS exposure would stop when transmissions stop. Additionally, the vast majority of impacts expected from sonar exposure and underwater detonations are behavioral in nature, temporary and comparatively short in duration, relatively infrequent, and not of the type or severity that would be expected to be additive for the portion of the stocks and species likely to be exposed. NMFS' final rule is specifically designed to reduce the effects of the Navy's activity on marine mammal species and stocks to the least practicable impact, through the inclusion of appropriate mitigation and monitoring measures, and the issuance of an Authorization with those conditions does not result in significant cumulative impacts when considered with all other past, present, and reasonably foreseeable projects.

Chapter 4 of the GOA FSEIS/OEIS contains a comprehensive assessment of potential cumulative impacts, including analyzing the potential for cumulatively significant impacts to the marine environment and marine mammals. Specifically, the Navy concluded, and NMFS concurs, that its proposed action is likely to result in generally no more than temporary changes to the noise environment and sediment and water quality. Therefore, there is limited potential for those effects to interact cumulatively with the effects of other past, present, and reasonably foreseeable projects. Implementation of the proposed action, in conjunction with other past, present, and reasonably foreseeable future actions, would not be expected to result in significant cumulative impacts to the environment. As such, the proposed action will not result in cumulative adverse effects that could have a substantial effect on species and populations in the action area.

In addition, we note that the Navy has been training in the same relative area for years using substantially similar training systems, and coupled with the multitude of other activities taking place in the area, there is no evidence of long term consequences to marine mammal populations or stocks.

Comment 65: NRDC *et al.* commented that NMFS must account for the additive impact of its activities in light of entanglement, harmful algal blooms, and changing ocean conditions.

Response: Please see the response above to comments 61–64 regarding how NMFS and the Navy have considered cumulative effects, such as those from entanglements, algal blooms, or other stressors resulting from actions other than the Navy's training. NMFS and the Navy have considered changing ocean conditions. As discussed in the GOA FSEIS/OEIS Section 3.4 (Marine Mammals), NMFS and the Navy are aware that marine mammals will shift their habitat based on changing ocean conditions. Please see specifically Section 3.8.2.5 (Marine Mammal Density Estimates) of the GOA FSEIS/OEIS discussing the integration of habitat modeling into the analysis; also see the Navy's Pacific Marine Species Density Database Technical Report. The predictive habitat models reflect the interannual variability and associated redistribution of marine mammals as a result of changing environmental conditions during the survey years used to develop the models. The analysis presented in the Navy' Pacific Marine Species Density Database Technical Report includes density data for periods of warmer water and potentially shifting ranges of marine mammals as a result of those conditions.

While climate change may result in changes in the distribution of marine mammals, it is currently not possible to predict how or under what conditions such changes might occur without engaging in unsupported conjecture. Therefore, it is not possible to reasonably determine what hypothetical future marine mammal distributions may look like as a result of climate change or otherwise factor such changes into an analysis of resulting potential effects and impacts from Navy activities.

Comment 66: NRDC *et al.* commented that the proposed rule does not adequately assess impacts to EFH and other habitat, fish, and other prey species. NRDC *et al.* also commented that the proposed rule is inconsistent with NMFS' findings in its Magnuson-Stevens Fishery Conservation and Management Act (MSA) consultation with the Navy.

Response: The commenters refer to the Navy's analysis of potential impacts to fish and EFH contained in the GOA 2011 FEIS/OEIS. It is important to note that the analysis referred to was conducted in the context of the MSA, the ESA, and Executive Order 12114. The factors used to assess the significance of effects vary under these Acts, and are also different from those applied to the MMPA's effects analysis. The purpose of this comment period

was for the public to provide comments on the proposed rule, which is being promulgated under the authority of the MMPA. NMFS fully considered impacts to fish and other prey species as a component of marine mammal habitat. Please see the ''Marine Mammal Habitat'' section of the proposed rule (81 FR 9950, 10000–03; February 26, 2016), which included an extensive discussion of the potential impact of the Navy's activities on fish and invertebrates. Potential impacts to marine mammal food resources within the GOA TMAA are negligible given both the lack of hearing sensitivity to mid-frequency sonar, the very limited spatial and temporal scope of most Navy activities at sea including underwater detonations, and the high biological productivity of these resources. NMFS concludes that no short- or long-term effects to marine mammal food resources from Navy activities are anticipated within the GOA TMAA. The effect of the Navy's activities on threatened and endangered fish was also addressed in NMFS' Biological Opinion, which concluded that the Navy's activities would not reasonably be expected to reduce appreciably the likelihood of the survival and recovery of any listed fish species.

Section 5.3.1.1.11 of the GOA FSEIS/OEIS (Avoiding Marine Species Habitats and Biologically Important Areas) discusses habitat avoidance. Section 3.6 of the GOA FSEIS/OEIS (Fish) provides the effects determinations on fish. As noted in Chapter 3.6 of the GOA FSEIS/OEIS, the current science regarding behavioral impacts to fish from sonar is that the potential for effects within the near field (within few tens of meters of the source), intermediate, or far distances is low (Popper *et al.,* 2014). For explosives, the potential for behavioral effects is high within a few tens of meters from the source, moderate to high within intermediate distances (100s of meters from the source), and low within the far field (thousands of meters from the source) (Popper *et al.,* 2014).

As described in the GOA FSEIS/OEIS, there is updated information such as fish stock assessment reports and information on fish hearing since the publication of the 2011 FEIS/OEIS. However, upon a comprehensive review of this new information, there are no changes to the affected environment (*e.g.* species present) or to the impact conclusions, which forms the environmental baseline of the fish analysis in the 2011 GOA FEIS/OEIS. Instead, a review of best available science on fish hearing indicates that most species are less likely to be affected than previously thought. The Navy and NMFS reviewed Popper *et al.* (2014) and other sources of best available science in the fall of 2015 and determined sonar and explosive criteria for fishes based on taxonomy which represents all fish species including salmon (refer to ''Navy's Northwest Training and Testing Phase II Sonar and Explosive Criteria for Fishes'' in the NWTT FEIS/OEIS). In summary, salmon and the majority of other fish species cannot hear mid-frequency sonar and therefore would not elicit a behavioral response. For fish species that can hear mid-frequency sonar, such as herring, a recent study concluded that the use of naval sonar poses little to no risk to populations of herring regardless of season, even when an entire population is aggregated during sonar exposure (Sivle *et al.,* 2015). Therefore, effects from sonar are not likely to any fish species, even those who have the ability to hear mid-frequency sonar. Sonar has not been known to cause mortality, mortal injury, or recoverable injury in the wild due to lack of fast rise times, lack of high peak pressures, and lack of high acoustic impulse. In addition, the potential for exposure to high levels is unlikely due to the very small area of effect around the source, and the inability for individuals or schools of fish to remain in that zone of effect while simultaneously maintaining a swim speed that can match ship speed for a long enough duration of time to accumulate energy. Effects from explosives are limited to the surface waters and the area in the immediate vicinity of the explosion. Deep water fish would not be affected based on their distance from the source and the lack of a developed swim bladder. No spawning areas or early life stages would be affected as they are not located in or near the TMAA. Finally, effects to habitat from temporal sound does not render the habitat unsuitable to support fish populations. In conclusion, the small scale of the potential effects on fish (including disturbance, injury, or mortality) are not expected to have any meaningful impact on the ability of marine mammals to acquire the prey that they need or fish populations in general.

Negligible Impact Determination and Analysis

Comment 67: NRDC *et al.* commented that NMFS should set the following research priorities with the Navy to address data gaps and to better inform its analysis and negligible impact determination: (1) Increased data collection and survey efforts to derive abundance estimates and improve knowledge on year-round and seasonal distribution; (2) research into sonar signal modifications; (3) thermal detection systems; and (4) research on Navy ship speeds during transit.

Response: Increased data collection and survey efforts—NMFS relied on the best available science to make all required findings under the MMPA prior to issuing an incidental take authorization to the Navy for training activities in the GOA TMAA. To be supportive of NMFS' mission, the Navy funded two previous GOA surveys, a visual line transect survey in 2009, and a visual and passive acoustic line-transect survey in 2013 (estimated cost $1.1 million for 2013 survey). With only 3-years between surveys (2009, 2013), this periodicity is more frequent than what NMFS schedules for almost any other area of the Pacific having equal limited data at present.

Visual line-transect surveys using medium to large oceanographic vessels is the current scientific gold standard promoted by NMFS for deriving marine mammal density. Successive data collection from these vessels is highly dependent on sea state with limited sightings available during higher sea states. This limitation means bad weather, a significant potential anytime in the offshore waters of GOA, can serious degrade the amount of data collected. For instance, the 2013 GOA line-transect survey was scheduled in July, the most optimum at-sea time in which to survey the GOA. However, only 59 percent (4,504) of the proposed pre-survey proposed tracks (7,644 km) could be realized. Additional future vessel use for visual surveys and towed passive acoustic surveys would likely have similar limitations.

The Navy-funded 2013 GOA survey provided the most current scientific sighting and density data available for GOA marine mammals. Over 164,953 km^2 of GOA were surveyed including strata reflecting specific oceanographic and biological regimes (shelf, slope, offshore, and seamounts). The strata development and sampling design presented by Rone *et al.* (2014) was generated and approved by NMFS' Alaska Fisheries Science Center. The scale of strata is representative of how NMFS designs all large area surveys to balance scientific need and at-sea survey costs as compared to available funding. Similar spatial survey scales are found in almost all NMFS offshore visual line-transect surveys for the Atlantic and Pacific Oceans. In fact, Rone *et al.* (2014) was more novel than many NMFS surveys in use of four unique biogeographic areas within the GOA. Given the large ranges that

constitute most offshore marine mammal distributions at daily, seasonal, and between year intervals, very small scale surveys and associated density estimation could conceivably: (a) Not provide enough species-specific sightings over a given survey or even a group of similar surveys that meet the statistical requirements for deriving density, and: (b) May not adequately represent a given species' total range. In general, visual or passive acoustic detection of some individuals of a species in one area does not necessarily preclude that all individuals or even a substantial part of a stock or species use the same small geographic area. During the survey, there were 964 visual detections of 2,266 individual marine mammals from 13 species. In addition, there were 345 passive acoustic detections of marine mammals from nine species. This sighting data from the 2013 survey was used to update marine mammal density by strata for those animals with sufficient sightings from which a statistically valid calculation could be determined (seven species). Densities derived from these sightings were in turn used in the Navy's impact assessment for GOA training.

The Navy has already funded over $2.6 million in new marine mammal monitoring within the GOA from 2011–2015. This included a 2013 visual line-transect and passive acoustic survey, up to five long-term (365 days/year) bottom-mounted passive acoustic devices on the shelf, slope, and seamounts, and a slope deployment of an underwater glider with passive acoustic sensors. The bottom-mounted devices deployed year-round have contributed valuable new science as to the occurrence and seasonality of GOA marine mammals, including blue whales, fin whales, gray whales, humpback whales, sperm whales, and beaked whales. To date, over 58,953 hours or 2,456 days' worth of passive acoustic data over all seasons have been collected, analyzed, and results reported through annual monitoring reports.

The Navy and NMFS believe that marine mammal density estimation from passive acoustic monitoring data is a promising field, which is why the Navy is a leader in funding new research to advance the state of the science. The Office of Naval Research (ONR) and the Living Marine Resources (LMR) program are currently funding multiple projects focused on the development and validation of statistical tools and analysis processes. To date, this field is very much in its infancy, and there are a number of unresolved issues that the current research is working to address. For example, the current Navy-funded research is focusing on aspects such as the proper characterization of calling rates, range of detection, and group size, all of which can vary by species, region, time of year/day, sex, etc. All of these variables can impact the resulting density estimate, and therefore the method of incorporating these variables needs to be investigated further. Once these methods are further developed and validated, marine mammal density estimation from passive acoustic monitoring data will be a promising tool to help characterize population abundance and distribution. Therefore, with few exceptions, universal density derivation from additional passive acoustic monitoring in the GOA over the next 3–5 years is premature given the science underlying this protocol is still in development.

The Navy currently has an ongoing satellite tagging project for blue and fin whales on the US West Coast (2014–2017). These are long-term tags reporting individual movement for a period of several weeks in a worst case scenario, and up to a year in a best case scenario. These are highly mobile species that could conceivably move through portions of the GOA TMAA and if applicable, those results will be highlighted in the Navy's future GOA monitoring reports. There has already been non-Navy funded satellite tagging of select Gulf of Alaska species separate and unrelated to Navy funded monitoring in the same region. Pacific Life Foundation funded the Marine Mammal Institute of Oregon State University to attach long-term satellite tracking tags to humpback whales adjacent to the Gulf of Alaska from 2014 to 2015. To date, 40 animals have been tagged and results are currently under analysis. Tagged humpback whales have been successfully tracked whales across the Gulf of Alaska to winter reproductive areas around Hawaii and through more coastal routes along the eastern North Pacific (including the Gulf) to the tip of Baja and nearshore regions off mainland Mexico.

See the ''Monitoring'' section of this final rule for more information on monitoring activities planned for 2017 to 2022. Through the adaptive management process, NMFS and Navy will work together to define future GOA TMAA monitoring in consideration of achievable scientific objectives, and in terms of logistical considerations including but not limited to funding availability, applicability of one technology in GOA vs. another, and other Navy monitoring commitments in other regions of the Pacific.

Sonar signal modifications—The Navy's suite of sonar systems have been designed and optimized for submarine and mine detection over 50 years of research and actual application. Individual signal characteristics are used because they are proven to work, otherwise the system would not be in use and would hamper Navy's effectiveness in capabilities to find and locate adversary submarines and to also protect Navy ships and submarines. Unwarranted signal modifications are impractical to implement, and would not allow the Navy to meet its Title 10 national defense obligations.

Thermal detection systems—The German Federal Ministry of Education and Research funded initial development of a cryogenically cooled thermal imaging device mounted on a stabilized gimbal and associated computer software (designed and built by Ocean Acoustics Lab, Alfred Wegener Institute Helmholtz-Zentrum for Polar and Marine Research and University of Erlangen-Nuremberg, Erlangen, Germany). The camera and detection software was initially field tested in the Arctic and Southern Ocean (Zitterbart *et al.,* 2013). In a follow-on project, the Navy's Office of Naval Research has continued funding development, at-sea testing and validation of this system from 2014–2016 in temperate waters off Australia and tropical waters off Hawaii. However, this system is still in an intermediate stage of development and not ready for a full-fledged sea trial of the commercially available stand-alone system. In addition, costs just for the camera system itself are still exceedingly large, on the order of $980,000, making the system better suited for future monitoring applications.

Integration of a non-Navy designed system into the sensor suite of a modern Navy ship is not a trivial task, and given the complexity of this or similar thermal imaging systems, would not be practical as a Navy surface ship mitigation. There are issues of quantity available to account for the several hundred Navy ships stationed in the Pacific, the overall costs for that many units, the concerns with lifecycle maintenance and upkeep with a system on ships deployed for long periods of time, ability to keep spare parts and critical components in stock and supplied as needed, and the issue of electromagnetic interference and engineering considerations when any new technology is proposed for a Navy ship. Some new technologies can take five to ten years to resolve all these issues, and in some cased may never be safely or

logistically integrated for just some of the above considerations.

Navy ship speeds during transit—To date, there has not been a Navy ship strike in the GOA over 20 years of infrequent use of the GOA TMAA. Navy ships always move at the safest practical speed based on a given training objective and schedule, operational need, and safety of navigation. Navy ships are required to report ship strikes to NMFS. Slow speeds are just as likely as and more probable than high speed maneuvers by surface vessels in many of the exercise event scenarios.

Vessel operators need to be able to react to changing tactical situations and evaluate system capabilities in training as they would in actual combat. Widespread speed restrictions would not allow the Navy to properly test vessel capabilities or train to react to these situations. Speed restrictions during some activities (*e.g.,* flight operations, underway replenishment, etc.) would also add unacceptable risk and decrease safety of personnel and vessels.

Collection of Navy ship speed data would not inform or improve the GOA FSEIS/OEIS analysis or NMFS' negligible impact determination for the GOA TMAA given the relative different speeds of vessels depending on activities and the lack of such impacts in the past that would suggest ship strikes are reasonably likely to occur.

Navy vessels operate differently from commercial vessels in ways important to the prevention of whale collisions. Surface ships operated by or for the Navy have personnel assigned to stand watch at all times, day and night, when a ship or surfaced submarine is moving through the water (underway). A primary duty of personnel standing watch on surface ships is to detect and report all objects and disturbances sighted in the water that may indicate a threat to the vessel and its crew, such as debris, a periscope, surfaced submarine, or surface disturbance. Per vessel safety requirements, personnel standing watch also report any marine mammals sighted in the path of the vessel as a standard collision avoidance procedure. All vessels use extreme caution and proceed at a safe speed so they can take proper and effective action to avoid a collision with any sighted object or disturbance, and can be stopped within a distance appropriate to the prevailing circumstances and conditions.

Comment 68: NRDC comments that our negligible impact determination is unsupported because of the lack of abundance data for certain species, including minke whales, sperm whales, and several species of beaked whales.

Response: NMFS is responsible for making a finding based on the best available science. The lack of recent abundance data for the species identified by the commenters does not preclude us from making the necessary findings for these species. As described in the Analysis and Negligible Impact Determination section, the nature and duration of the activities, combined with the mitigation requirements, are such that we anticipate only short-term and lower-level Level B harassment of the affected individuals. In short, there is very little likelihood that any individuals will suffer fitness-level effects that threaten their reproductive success or survivorship. Because of the anticipated lack of fitness-level effects to any individuals, species or stock abundance is less of a factor in the analysis of population-level effects. Nonetheless, information has been added to the negligible impact analysis section that describes the abundance information we do have for species without recent abundance estimates, which allows for at least a broad-scale relative understanding of abundance.

NEPA

Comment 69: NRDC *et al.* commented that NMFS cannot rely on adoption of the Navy's GOA FSEIS/OEIS to fulfill its obligation under NEPA due to the inadequacy of the document.

Response: NMFS disagrees with the commenters' assertion that the GOA FSEIS/OEIS is inadequate for our adoption and to meet our responsibilities under NEPA for the issuance of regulations and LOA, or that NMFS has not fulfilled its NEPA obligations. NMFS notes that comments submitted on the GOA DSEIS/OEIS during its public comment period are addressed by the Navy in Appendix D of the GOA FSEIS/OEIS.

NMFS' Office of Protected Resources has thoroughly reviewed the Navy's GOA FSEIS/OEIS and concluded that the impacts evaluated by the Navy are substantially the same as the impacts of NMFS' proposed action to issue regulations (and associated LOA) governing the take of marine mammals incidental to Navy training activities in the GOA TMAA Study Area from May 2017 through May 2022. In addition, the Office of Protected Resources has evaluated the GOA FSEIS/OEIS and found that it includes all required components for adoption by NOAA including: A discussion of the purpose and need for the action; a listing of the alternatives to the proposed action; a description of the affected environment; a succinct description of the environmental impacts of the proposed action and alternatives, including cumulative impacts; and a listing of agencies and persons consulted, and to whom copies of the GOA FSEIS/OEIS are sent.

Per the cooperating agency commitment, the Navy provided NMFS with early preliminary drafts of the GOA DSEIS/OEIS and the FSEIS/OEIS and a designated (and adequate) timeframe within which NMFS could provide comments. The Office of Protected Resources circulated the Navy's preliminary NEPA documents to other interested NOAA line offices and NMFS' regional and science center offices, compiled any comments received, and submitted them to the Navy. Subsequently, the Navy and NMFS participated in comment resolution meetings, in which the Navy addressed NMFS' comments, and in which any outstanding issues were resolved. The Navy has incorporated the majority of NMFS' comments into the GOA FSEIS/OEIS, and adequately addressed those comments that were not incorporated. As a result of this review, the Office of Protected Resources has determined that it is not necessary to prepare a separate Environmental Assessment or EIS to issue regulations or LOA authorizing the incidental take of marine mammals pursuant to the MMPA, and that adoption of the Navy's GOA FSEIS/OEIS is appropriate. Based on NMFS' review of the FSEIS, NMFS has adopted the FSEIS under the Council on Environmental Quality's Regulations for Implementing the National Environmental Policy Act (40 CFR 1506.3). Furthermore, in accordance with NEPA, its implementing regulations, and the NOAA's Administrative Order (NAO) 216–6A and Companion Manual, we have prepared a Record of Decision (ROD) which addresses NMFS' determination to issue regulations and LOA to the Navy pursuant to section 101(a)(5)(A) of the MMPA, for the taking of marine mammals incidental to the conduct of the Navy's training activities.

Estimated Take of Marine Mammals

In the ''Estimated Take of Marine Mammals'' section of the proposed rule, NMFS described the potential effects to marine mammals from active sonar and underwater detonations in relation to the MMPA regulatory definitions of Level A and Level B harassment (81 FR 9950, 9992–97; February 26, 2016). Much of that information has not changed and is not repeated here; however, two changes to the input into take estimates have occurred and are

described both in the ''Summary of Request'' and the ''Take Request'' immediately below.

It is important to note that, as Level B harassment is interpreted here and quantified by the behavioral thresholds described below, the fact that a single behavioral pattern (of unspecified duration) is abandoned or significantly altered and classified as a Level B harassment take does not mean, necessarily, that the fitness of the harassed individual is affected either at all or significantly, or that, for example, a preferred habitat area is abandoned. Further analysis of context and duration of likely exposures and effects is necessary to determine the impacts of the estimated effects on individuals and how those may translate to population-level impacts, and is included in the Analysis and Negligible Impact Determination.

Tables 7 and 8 provide a summary of non-impulsive and impulsive thresholds to TTS and PTS for marine mammals, reflecting the acoustic thresholds used by the Navy for its acoustic effects model (NAEMO) in the Navy's FEIS/OEIS and reflected in the proposed rule. Behavioral thresholds for impulsive sources are summarized in Table 9. A detailed explanation of how these thresholds were derived is provided in the Criteria and Thresholds Technical Report (Finneran and Jenkins, 2012) and summarized in Chapter 6 of the LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*). As described in detail elsewhere, NMFS' new Acoustic Guidance, and the associated thresholds (*http://www.nmfs.noaa.gov/pr/acoustics/Acoustic%20Guidance%20Files/opr-55_acoustic_guidance_tech_memo.pdf*) have also been considered in this final rule.

TABLE 7—ONSET TTS AND PTS THRESHOLDS FOR NON-IMPULSE SOUND

Group	Species	Onset TTS	Onset PTS
Low-Frequency Cetaceans	All mysticetes	178 dB re 1μPa2-sec(LF_{II}).	198 dB re 1μPa2-sec(LF_{II}).
Mid-Frequency Cetaceans	Most delphinids, beaked whales, medium and large toothed whales.	178 dB re 1μPa2-sec(MF_{II}).	198 dB re 1μPa2-sec(MF_{II}).
High-Frequency Cetaceans	Porpoises, *Kogia* spp	152 dB re 1μPa2-sec(HF_{II}).	172 dB re 1μPa2-secSEL (HF_{II}).
Phocidae In-water	Harbor, Hawaiian monk, elephant seals	183 dB re 1μPa2-sec(P_{WI}).	197 dB re 1μPa2-sec(P_{WI}).
Otariidae & Obodenidae In-water	Sea lions and fur seals	206 dB re 1μPa2-sec(O_{WI}).	220 dB re 1μPa2-sec(O_{WI}).
Mustelidae In-water	Sea otters.		

LF_{II}, MF_{II}, HF_{II}: New compound Type II weighting functions; P_{WI}, O_{WI}: Original Type I (Southall *et al.,* 2007) for pinniped and mustelid in water.

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Table 8. Impulsive sound explosive criteria and thresholds for predicting injury and mortality.

Group	Species	Onset TTS	Onset PTS	Onset Slight GI Tract Injury	Onset Slight Lung Injury	Onset Mortality
Low Frequency Cetaceans	All mysticetes	172 dB re 1 μPa^2-s SEL (Type II weighting) or 224 dB re 1 µPa Peak SPL (unweighted)	187 dB re 1 μPa^2-s SEL (Type II weighting) or 230 dB re 1 µPa Peak SPL (unweighted)	237 dB re 1 µPa (unweighted)	Note 1	Note 2
Mid-Frequency Cetaceans	Most delphinids, medium and large toothed whales	172 dB re 1 μPa^2-s SEL (Type II weighting) or 224 dB re 1 µPa Peak SPL (unweighted)	187 dB re 1 μPa^2-s SEL (Type II weighting) or 230 dB re 1 µPa Peak SPL (unweighted)			
High Frequency Cetaceans	Porpoises and *Kogia* spp.	146 dB re 1 μPa^2-s SEL (Type II weighting) or 195 dB re 1 µPa Peak SPL (unweighted)	161 dB re 1 μPa^2-s SEL (Type II weighting) or 201 dB re 1 µPa Peak SPL (unweighted)			
Phocidae	Northern elephant seal and harbor seal	177 dB re 1 μPa^2-s (Type I weighting) or 212 dB re 1 µPa Peak SPL (unweighted)	192 dB re 1 μPa^2-s (Type I weighting) or 218 dB re 1 µPa Peak SPL (unweighted)			
Otariidae	Steller and California Sea Lion, Guadalupe and Northern fur seal	200 dB re 1 μPa^2-s (Type I weighting) or 212 dB re 1 µPa Peak SPL (unweighted)	215 dB re 1 μPa^2-s (Type I weighting) or 218 dB re 1 µPa Peak SPL (unweighted)			
Mustelidae	Sea Otter					

Note 1 $= 39.1M^{1/3}\left(1+\frac{D_{Rm}}{10.081}\right)^{1/2} Pa-\text{sec}$

Note 2 $= 91.4M^{1/3}\left(1+\frac{D_{Rm}}{10.081}\right)^{1/2} Pa-\text{sec}$

[1] Impulse calculated over a delivery time that is the lesser of the initial positive pressure duration or 20 percent of the natural period of the assumed-spherical lung adjusted for animal size and depth.

Notes: GI = gastrointestinal, M = mass of animals in kilograms, D_{Rm} = depth of receiver (animal) in meters, SEL = Sound Exposure Level, SPL = Sound Pressure Level (re 1 µPa), dB = decibels, re 1 µPa = referenced to one micropascal, dB re 1 μPa^2-s = decibels referenced to one micropascal squared second

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TABLE 9—BEHAVIORAL THRESHOLDS FOR IMPULSIVE SOUND

Hearing group	Impulsive behavioral threshold for >2 pulses/ 24 hours	Onset TTS
Low-Frequency Cetaceans	167 dB SEL (LF_{II})	172 dB SEL (MF_{II}) or 224 dB Peak SPL.
Mid-Frequency Cetaceans	167 dB SEL (MF_{II}).	
High-Frequency Cetaceans	141 dB SEL (HF_{II})	146 dB SEL (HF_{II}) or 195 dB Peak SPL.
Phocid Seals (in water)	172 dB SEL (P_{WI})	177 dB SEL (P_{WI}) or 212 dB Peak SPL.

TABLE 9—BEHAVIORAL THRESHOLDS FOR IMPULSIVE SOUND—Continued

Hearing group	Impulsive behavioral threshold for >2 pulses/ 24 hours	Onset TTS
Otariidae & Mustelidae (in water)	195 dB SEL (O_{WI})	200 dB SEL (O_{WI}) or 212 dB Peak SPL.

Notes: (1) LF_{II}, MF_{II}, HF_{II} are New compound Type II weighting functions; P_{WI}, O_{WI} = Original Type I (Southall *et al.,* 2007) for pinniped and mustelid in water (see Finneran and Jenkins 2012). (2) SEL = re 1 μPa^2-s; SPL = re 1 μPa, SEL = Sound Exposure Level, dB = decibel, SPL = Sound Pressure Level.

Take Request

The GOA FSEIS/OEIS considered all training activities proposed to occur in the Study Area that have the potential to result in the take of marine mammals as defined by the MMPA. The stressors associated with these activities included the following:

- Acoustic (sonar and other active non-impulse sources, explosives, swimmer defense airguns, weapons firing, launch and impact noise, vessel noise, aircraft noise);
- Energy (electromagnetic devices);
- Physical disturbance or strikes (vessels, in-water devices, military expended materials, seafloor devices);
- Entanglement (fiber optic cables, guidance wires, parachutes);
- Ingestion (munitions, military expended materials other than munitions); and
- Secondary stressors (sediments and water quality).

The Navy determined, and NMFS agrees, that two stressors could potentially result in the incidental taking of marine mammals from training activities within the Study Area: (1) Non-impulsive stressors (sonar and other active acoustic sources) and (2) impulsive stressors (explosives). Non-impulsive and impulsive stressors have the potential to result in incidental takes of marine mammals by harassment, injury, or mortality. Explanation of why the other stressors listed above are unlikely to result in the incidental taking of marine mammals is provided in the FSEIS/OEIS and the proposed rule.

Training Activities

Based on the Navy's model and post-model analysis, modified as described below, Table 10 summarizes the Navy's final take request for training activities for a year (1 exercise occurring over a 7-month period (April–October) and the summation over a 5-year period (1 exercise occurring over a 7-month period (April–October) for a total of 5 exercises).

TABLE 10—SUMMARY OF ANNUAL AND 5-YEAR TAKE REQUESTS FOR GOA TMAA TRAINING ACTIVITIES

MMPA category	Source	Training activities	
		Annual authorization sought	5-Year authorization sought
Mortality	Explosives	0	0.
Level A	Sonar and other active acoustic sources; explosives.	4 (Dall's porpoise only as shown in Table 11).	20 (Dall's porpoise only as shown in Table 11).
Level B	Sonar and other active acoustic sources; explosives.	18,250 (Species specific data shown in Table 11).	91,250 (Species specific data shown in Table 11).

Impulsive and Non-Impulsive Sources

Table 11 provides details on the Navy's final take request for training activities by species from the acoustic effects modeling estimates. There are no mortalities predicted for any species incidental to the proposed training activities. Only four Level A harassment takes are predicted to occur for one species (*i.e.,* Dall's porpoises).

Derivations of the numbers presented in Table 11 are described in more detail within Chapter 6 of the LOA application, but modified as described in the ''Summary of Request'' section. As described in that section, take estimates have changed since publication of proposed rule based on the following:

(1) The Navy modified its incidental take request to reflect the level of activities described by Alternative 1 of the FSEIS/OEIS (as opposed to Alternative 2) following a reassessment of reasonably foreseeable training requirements for the GOA TMAA. This change in alternative will reduce the total anticipated amount of annual training activities by reducing the number of annual Carrier Strike Group Exercises from 2 to 1 and the number of SINKEXs from 2 to 0 (see ''Summary of Request''), ultimately reducing the take authorized. Thus, the take estimates shown in Table 11 reflect those presented for Alternative 1 in the GOA FSEIS/OEIS and are greatly reduced from what was presented in the proposed rule and the Navy's application.

(2) Level A and Level B harassment takes shown in Table 11 are slightly different for one species (*i.e.,* for Dall's porpoise only) from what is described in Alternative 1 of the FSEIS/OEIS. This change is a result of the Navy's reprocessing of anticipated explosive ranges to effects for Level A and Level B harassment based on NMFS' new Guidance to assess if the new acoustic thresholds in the Guidance could result in any additional species-specific injury exposures when applied to GOA Phase II training activities. The Navy's analysis found that applying the new thresholds to the training activities addressed by Alternative 1 would result in an additional three Dall's porpoise Level A harassment (PTS) takes from explosives and an additional 149 Level B harassment takes (TTS and behavioral responses) compared to the take numbers presented in Alternative 1 of the FSEIS/OEIS. The Navy's analysis concluded that applying the new acoustic criteria would result in no additional anticipated explosive takes to any other species.

TABLE 11—SPECIES-SPECIFIC TAKE REQUESTS FROM MODELING ESTIMATES OF IMPULSIVE AND NON-IMPULSIVE SOURCE EFFECTS FOR ALL TRAINING ACTIVITIES

Species	Stock	Annual		5-year	
		Level B	Level A	Level B	Level A
North Pacific right whale	Eastern North Pacific	3	0	15	0
Humpback whale *	Central North Pacific	61	0	305	0
	California, Washington, Oregon	7	0	35	0
	Western North Pacific	1	0	5	0
Blue whale	Eastern North Pacific	47	0	235	0
	Central North Pacific	0	0	0	0
Fin whale	Northeast Pacific	1,291	0	6,455	0
Sei whale	Eastern North Pacific	6	0	30	0
Minke whale	Alaska	43	0	215	0
Gray whale	Eastern North Pacific	0	0	0	0
	Western North Pacific	0	0	0	0
Sperm whale	North Pacific	98	0	490	0
Killer whale	Alaska Resident	281	0	1,405	0
	Eastern North Pacific Offshore	26	0	130	0
	AT1 Transient	0	0	0	0
	GOA, Aleutian Island, and Bearing Sea Transient.	72	0	360	0
Pacific white-sided dolphin.	North Pacific	981	0	4,905	0
Harbor porpoise	Gulf of Alaska	2,742	0	13,710	0
	Southeast Alaska	963	0	4,815	0
Dall's porpoise **	Alaska	8,270	**4	41,350	20
Cuvier's beaked whale	Alaska	1,271	0	6,355	0
Baird's beaked whale	Alaska	200	0	1,000	0
Stejneger's beaked whale.	Alaska	576	0	2,880	0
Steller sea lion	Eastern U.S.	335	0	1,675	0
	Western U.S.	286	0	1,430	0
California sea lion	U.S.	2	0	10	0
Northern fur seal	Eastern Pacific-Alaska	713	0	3,565	0
Northern elephant seal	California Breeding	122	0	610	0
Harbor seal	Aleutian Islands	0	0	0	0
	Pribilof Islands	0	0	0	0
	Bristol Bay	0	0	0	0
	North Kodiak	0	0	0	0
	South Kodiak	1	0	5	0
	Prince William Sound	1	0	5	0
	Cook Inlet/Shelikof	0	0	0	0
	Glacier Bay/Icy Strait	0	0	0	0
	Sitka/Chatham	0	0	0	0
	Dixon/Cape Decision	0	0	0	0
Ribbon seal	Alaska	0	0	0	0
Totals		18,250	4	91,250	20

* Since the publication of the proposed rule, NMFS requested that the Navy include an additional ESA-listed stock of humpback whale (CA/OR/WA stock) that could have some elements of its population in or transiting the GOA TMAA. NMFS agreed with the Navy's assessment that the most accurate approach would be to re-proportion total modeled humpback whale takes to all three stocks based on best available science. The Navy prorated existing modeled humpback whale takes into three parts based on relative abundance between the Central North Pacific stock, the CA/OR/WA stock, and the Western North Pacific stock as detailed in scientific sighting and genetic studies (Calambokidis *et al.,* 2008). Thus, Table 11 shows the revised prorated breakdown of Level B harassment takes by humpback whale stocks. Total number of takes does not differ from what was determined for the proposed rule, nor does our negligible impact determination for this species change, as discussed below.

** The Navy, at NMFS' request, provided a quantitative analysis of how explosive takes could change if the new NMFS acoustic criteria were applied retroactively to GOA Phase II results. The Navy's analysis concluded that changes in the take estimate would occur for only one species (Dall's porpoise) under this assessment (+3 Level A PTS and +149 Level B (TTS and behavior) takes as compared to Alternative 1 of the FSEIS/OEIS).

Marine Mammal Habitat

The Navy's proposed training activities 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 Chapter 3 of the GOA FSEIS/OEIS. Based on the information in the ''Marine Mammal Habitat'' section of the proposed rule (81 FR 9950, 10000–03; February 26, 2016) and the supporting information included in the GOA FSEIS/OEIS, NMFS has determined that training activities would not have adverse or long-term impacts on marine mammal habitat. In summary, expected effects to marine mammal habitat will include transitory elevated levels of anthropogenic sound in the water column; short-term physical alteration of the water column or bottom topography; brief disturbances to marine invertebrates; localized and infrequent disturbance to fish; a limited number of fish mortalities; and temporary marine mammal avoidance.

Analysis and Negligible Impact Determination (NID)

Negligible impact is ''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'' (50 CFR 216.103). 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 takes, alone, is not enough information on which to base an impact determination, as the severity of harassment may vary greatly depending on the context and duration of the behavioral response, many of which would not be expected to have deleterious impacts on the fitness of any individuals. In determining whether the expected takes will have a negligible impact, in addition to considering estimates of the number of marine mammals that might be ''taken,'' 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.), as well as the number and nature (*e.g.,* severity) of estimated Level A harassment takes, the number of estimated mortalities, and the status of the species. As a reminder, the GOA TMAA training activities will not occur continuously throughout the year, but rather, for a maximum of 21 days once annually between April and October.

The Navy's specified activities have been described based on best estimates of the maximum amount of sonar and other acoustic source use or detonations that the Navy would conduct. There may be some flexibility in that the exact number of hours, items, or detonations may vary from year to year, but the total amount of incidental take is not authorized to exceed the 5-year totals indicated in Table 11. We base our analysis and NID on the maximum number of takes authorized, although, as stated before, the number of takes are only a part of the analysis, which includes extensive qualitative consideration of other contextual factors that influence the degree of impact of the takes on the effected individuals. To avoid repetition, we provide some general analysis immediately below that applies to all the species listed in Table 11, given that some of the anticipated effects (or lack thereof) of the Navy's training activities on marine mammals are expected to be relatively similar in nature. However, below that, we break our analysis into species, or groups of species where relevant similarities exist, to provide more specific information related to the anticipated effects on individuals or where there is information about the status or structure of any species that would lead to a differing assessment of the effects on the population.

The Navy's take request is based on its model and post-model analysis, modified as described in the ''Summary of Request'' and ''Take Request'' sections. In the discussions below, the ''acoustic analysis'' refers to the Navy's modeling results and post-model analysis. The model calculates sound energy propagation from sonar, other active acoustic sources, and explosives during naval activities; the sound or impulse received by animat dosimeters representing marine mammals distributed in the area around the modeled activity; and whether the sound or impulse received by a marine mammal exceeds the thresholds for effects. The model estimates are then further analyzed to consider animal avoidance and implementation of highly effective mitigation measures to prevent Level A harassment, resulting in final estimates of effects due to Navy training. NMFS provided input to the Navy on this process and the Navy's qualitative analysis is described in detail in Chapter 6 of its LOA application (*http://www.nmfs.noaa.gov/pr/permits/incidental/militry.htm*).

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 (although 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 requested number of Level B harassment takes does not equate to the number of individual animals the Navy expects to harass (which is lower), but rather to the instances of take (*i.e.,* exposures above the Level B harassment threshold) that would occur. These instances may represent either a very brief exposure (seconds) or, in some cases, longer durations of exposure within a day. Depending on the location, duration, and frequency of activities, along with the distribution and movement of marine mammals, individual animals may be exposed to impulse or non-impulse sounds at or above the Level B harassment threshold on multiple days. However, the Navy is currently unable to estimate the number of individuals that may be taken during training activities. Therefore, the model results estimate the total number of takes that may occur to a smaller number of individuals. While the model shows that an increased number of exposures may take place due to an increase in events/activities and ordnance, the types and severity of individual responses to training and activities are not expected to change.

Behavioral Responses

As discussed in the proposed rule, marine mammals can respond to LF/MFAS/HFAS in many different ways, a subset of which qualifies as Level B harassment. As described in the proposed rule, the Navy uses the behavioral response function to quantify the number of behavioral responses that would qualify as Level B harassment under the MMPA. As the statutory definition is currently applied, a wide range of behavioral reactions may qualify as Level B harassment under the MMPA, including but not limited to avoidance of the sound source, temporary changes in vocalizations or dive patterns, temporary avoidance of an area, or temporary disruption of feeding, migrating, or reproductive behaviors. The estimates calculated using the behavioral response function do not differentiate between the different types of potential reactions. Nor do the estimates provide information regarding the potential fitness or other biological consequences of the reactions on the affected individuals. We therefore consider the available scientific evidence to determine the likely nature of the modeled behavioral responses and the potential fitness consequences for affected individuals.

For LF/MFAS/HFAS use in the GOA TMAA, the Navy provided information (Table 12) estimating the percentage of Level B harassment that would occur within the 6-dB bins (without considering mitigation or avoidance). 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 animal. As illustrated below, the majority (including about 65–72 percent for the most powerful ASW hull-mounted sonar, which is responsible for a large portion of the sonar takes) of calculated takes from MFAS result from exposures less than 162 dB and more than 20km away. Less than 1–2 percent of the takes are expected to result from exposures above 168 dB or closer than 4km. Specifically, given a range of behavioral responses that may be classified as Level B harassment, to the degree that higher received levels are expected to result in more severe behavioral responses, only

a small percentage of the anticipated Level B harassment from Navy activities might necessarily be expected to potentially result in more severe responses, especially when the distance from the source at which the levels below are received is considered (see Table 12). Marine mammals are able to discern the distance of a given sound source, and given other equal factors (including received level), they have been reported to respond more to sounds that are closer (DeRuiter *et al.,* 2013). Further, the estimated number of responses do not reflect either the duration or context of those anticipated responses, some of which will be of very short duration, and other factors should be considered when predicting how the estimated takes may affect individual fitness. A recent study by Moore and Barlow (2013) emphasizes the importance of context (*e.g.,* behavioral state of the animals, distance from the sound source, etc.) in evaluating behavioral responses of marine mammals to acoustic sources.

TABLE 12—NON-IMPULSIVE RANGES TO RECEIVED SOUND PRESSURE LEVELS IN 6-dB BINS AND PERCENTAGE OF LEVEL B HARASSMENTS FOR THREE REPRESENTATIVE SONAR SYSTEMS

Received level	Sonar Bin MF1 (*e.g.,* SQS–53; ASW hull mounted sonar)		Sonar Bin MF4 (*e.g.,* AQS–22; ASW dipping sonar)		Sonar Bin MF5 (*e.g.,* SSQ–62; ASW sonobuoy)	
	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels	Distance at which levels occur within radius of source (m)	Percentage of behavioral harassments occurring at given levels
Low Frequency Cetaceans						
120 ≤ SPL < 126	185,400–160,325	0	91,363–70,650	0	20,463–12,725	0
126 ≤ SPL < 132	160,325–138,400	0	70,650–49,125	0	12,725–7,575	0
132 ≤ SPL < 138	138,400–118,100	0	49,125–28,950	4	7,575–3,813	5
138 ≤ SPL < 144	118,100–85,400	2	28,950–10,800	29	3,813–2,200	15
144 ≤ SPL < 150	85,400–61,288	7	10,800–4,250	29	2,200–638	51
150 ≤ SPL < 156	61,288–42,750	19	4,250–2,013	19	638–250	18
156 ≤ SPL < 162	42,750–20,813	43	2,013–638	16	250–100	9
162 ≤ SPL < 168	20,813–4,375	26	638–200	3	100–<50	3
168 ≤ SPL < 174	4,375–1,825	1	200–100	0	<50	0
174 ≤ SPL < 180	1,825–750	0	100–<50	0	<50	0
180 ≤ SPL < 186	750–375	0	<50	0	<50	0
186 ≤ SPL < 192	375–200	0	<50	0	<50	0
192 ≤ SPL < 198	200–100	0	<50	0	<50	0
Odontocetes and Pinnipeds						
120 ≤ SPL < 126	185,450–160,475	0	93,075–71,275	0	21,288–14,200	0
126 ≤ SPL < 132	160,475–138,750	0	71,275–50938	0	14,200–8,238	0
132 ≤ SPL < 138	138,750–123,113	0	50,938–29,075	1	8,238–4,350	1
138 ≤ SPL < 144	123,113–85,450	1	29,075–11,050	14	4,350–2,425	6
144 ≤ SPL < 150	85,450–61,363	4	11,050–4,250	25	2,425–1,213	24
150 ≤ SPL < 156	61,363–42,763	14	4,250–2,013	24	1,213–250	54
156 ≤ SPL < 162	42,763–21,025	44	2,013–638	28	250–150	7
162 ≤ SPL < 168	21,025–4,475	35	638–200	7	150–<50	9
168 ≤ SPL < 174	4,475–1,850	2	200–100	1	<50	0
174 ≤ SPL < 180	1,850–763	0	100–<50	0	<50	0
180 ≤ SPL < 186	763–400	0	<50	0	<50	0
186 ≤ SPL < 192	400–200	0	<50	0	<50	0
192 ≤ SPL < 198	200–100	0	<50	0	<50	0

Notes: (1) ASW = anti-submarine warfare, m = meters, SPL = sound pressure level; (2) Odontocete behavioral response function is also used for high-frequency cetaceans, phocid seals, otariid seals and sea lions, and sea otters.

Although the Navy has been monitoring to discern the effects of LF/MFAS/HFAS on marine mammals since 2006, and research on the effects of MFAS is advancing, our understanding of exactly how marine mammals in the Study Area will respond to LF/MFAS/HFAS is still improving. However, the Navy has submitted more than 80 reports, including Major Exercise Reports, Annual Exercise Reports, and Monitoring Reports, documenting hundreds of thousands of marine mammals across Navy range complexes, and there are only two instances of overt behavioral disturbances that have been observed. 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.), the full series of behaviors that would more accurately show an important change is not typically seen (*i.e.,* only the surface behaviors are observed), 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.

Some of the lower level physiological stress responses discussed in the Potential Effects section of the proposed rule would 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. Level B harassment takes, then, may have a stress-related physiological component as well; however, we would

not expect the Navy's generally short-term, intermittent, and (in the case of sonar) transitory activities to create conditions of long-term, continuous noise leading to long-term physiological stress responses in marine mammals.

Diel Cycle

As noted in the Potential Effects section of the proposed rule, many animals perform vital functions, such as feeding, resting, traveling, and socializing on a diel cycle (24-hour cycle). Behavioral reactions to noise exposure (when taking place in a biologically important context, 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 severe unless it could directly affect reproduction or survival (Southall *et al.,* 2007). Note that there is a difference between multiple-day substantive behavioral reactions and multiple-day anthropogenic activities. For example, just because an at-sea exercise lasts for multiple days does not necessarily mean that individual animals are either exposed to those exercises for multiple days or, further, exposed in a manner resulting in a sustained multiple day substantive behavioral response. Large multi-day Navy exercises, such as those proposed in the GOA TMAA, typically include vessels that are continuously moving at speeds typically 10–15 knots, or higher, and likely cover large areas that are relatively far from shore, in addition to the fact that marine mammals are moving as well, which would make it unlikely that the same animal could remain in the immediate vicinity of the ship for the entire duration of the exercise. Additionally, the Navy does not necessarily operate active sonar the entire time during an exercise (though exercise reports are classified, the unclassified report for the 2011 training events indicated that sonar was operated for a total of 67 minutes in the 12-day exercise). While it is certainly possible that these sorts of exercises could overlap with individual marine mammals multiple days in a row at levels above those anticipated to result in a take, because of the factors mentioned above, it is considered unlikely for the majority of takes. Even if an exercise overlaps with an individual marine mammal multiple days in a rule, this does not mean that a behavioral response is necessarily sustained for multiple days, but instead necessitates the consideration of likely duration and context to assess any effects on the individual's fitness.

Durations for non-impulsive activities utilizing tactical sonar sources vary and are fully described in Appendix A of the GOA FSEIS/OEIS. ASW training exercises using MFAS/HFAS proposed for the GOA TMAA generally last for 2–16 hours, and may have intervals of non-activity in between. Because of the need to train in a large variety of situations (in the case of the GOA TMAA, complex bathymetric and oceanographic conditions include a continental shelf, submarine canyons, seamounts, and fresh water infusions from multiple sources), the Navy does not typically conduct successive ASW exercises in the same locations. Given the average length of ASW exercises (times of continuous sonar use) and typical vessel speed, combined with the fact that the majority of the cetaceans in the GOA TMAA Study Area would not likely remain in an area for successive days, it is unlikely that an animal would be exposed to MFAS/HFAS at levels likely to result in a substantive response that would then be carried on for more than one day or on successive days.

Planned explosive exercises for the GOA TMAA are of a short duration (1–6 hours). Although explosive exercises may sometimes be conducted in the same general areas repeatedly, because of their short duration and the fact that they are in the open ocean and animals can easily move away, it is similarly unlikely that animals would be exposed for long, continuous amounts of time.

Temporary Threshold Shifts (TTS)

As mentioned previously, TTS can last from a few minutes to days, be of varying degree, and occur across various frequency bandwidths, all of which determine the severity of the impacts on the affected individual, which can range from minor to more severe. The TTS sustained by an animal is primarily classified by three characteristics:

1. *Frequency*—Available data (of mid-frequency hearing specialists exposed to mid- or 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 more powerful MF sources used 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 fewer hours of HF source use and the sounds would attenuate more quickly. They also have lower source levels, 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. Vocalization data for each species, which would inform how TTS might specifically potentially interfere with communications with conspecifics, was provided in the LOA application.

2. *Degree of the shift* (*i.e.,* by how many dB the sensitivity of the hearing is reduced)—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 was discussed previously in this final rule. 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 Lookouts and the nominal speed of an active sonar vessel (10–15 knots). In the TTS studies (see *Threshold Shift* section of the proposed rule), 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-second exposure to a 20 kHz source. However, MFAS emits a short ping typically every 50 seconds, and TTS incurred from these activities would likely be of smaller degree and shorter duration.

3. *Duration of TTS (recovery time)*—In the TTS laboratory studies (see *Threshold Shift* section of the proposed rule), some using exposures of almost an hour in duration or up to 217 SEL, almost all individuals recovered within 1 day (or less, often in minutes), although in one study (Finneran *et al.,* 2007), recovery took 4 days. In this case, because of the likely SEL exposure, TTS incurred would be expected to be less and recovery time would be shorter.

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 in the GOA TMAA, it is unlikely that marine mammals would ever sustain a TTS from MFAS that alters their sensitivity

by more than 20 dB for more than a few days (and any incident of TTS would likely be far less severe due to the short duration of the majority of the exercises and the speed of a typical vessel). 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 is impeded. Additionally, 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 most likely be sustained because the higher source level and slower attenuation make it more likely that an animal would be exposed to a higher received level) would not usually span the entire frequency range of one vocalization type, much less span all types of vocalizations or other critical auditory cues. If impaired, marine mammals would typically be aware of their impairment and are sometimes able to implement behaviors to compensate (see *Acoustic Masking or Communication Impairment* section), though these compensations may incur energetic costs. Because of the low levels and short duration of TTS expected to result from these activities, little, if any, energetic costs would be expected to be incurred.

Acoustic Masking or Communication Impairment

Masking only occurs during the time of the signal (and potential secondary arrivals of indirect rays), versus TTS, which continues beyond the duration of the signal. Standard MFAS typically pings every 50 seconds for hull-mounted sources. 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 tens of microseconds. 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 50 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, communication series, or other critical auditory cue, because the signal length, frequency, and duty cycle of the MFAS/HFAS signal does not perfectly mimic the characteristics of any marine mammal's vocalizations. The other sources used in Navy training, many of either higher frequencies (meaning that the sounds generated attenuate even closer to the source) or lower amounts of operation, are similarly not expected to result in masking.

PTS, Injury, or Mortality

NMFS believes that many marine mammals would deliberately avoid exposing themselves to the received levels of active sonar necessary to induce injury 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) would typically 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. There was no modeled prediction of mortality to any species that occurs in the Study Area as a result of the Navy's training activities.

If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS, the likely speed of the vessel (nominal 10–15 knots) would make it very difficult for the animal to remain in range long enough to accumulate enough energy to result in more than a mild case of PTS. As mentioned previously and in relation to TTS, the likely consequences to the health of an individual that incurs PTS can range from mild to more serious dependent upon the degree of PTS and the frequency band it is in, and many animals are able to compensate for the shift, although it may include energetic costs. Because of the small degree of PTS that would likely result, if it occurs, any energetic costs incurred by four Dall's porpoises would be expected to be relatively small.

No Level A harassment takes are predicted to occur to any species from exposure to non-impulsive sound. As mentioned previously, the Navy reprocessed anticipated ranges to PTS for impulsive sources (explosives) based on NMFS' new Guidance to assess if the new acoustic criteria could result in any additional species-specific injury exposures. The Navy did not reprocess anticipated sonar ranges to effects for PTS because the acoustic thresholds used in the Navy's modeling are largely more conservative that the new Guidance, and NMFS and the Navy qualitatively evaluated (described earlier) the effects the change would have on our analyses. The Navy's analysis concluded that only four Level A (PTS) takes per year to one species (Dall's porpoise) are predicted to occur from GOA training activities. No species other than Dall's porpoise would be expected to incur PTS from explosives if the new Guidance was applied to the Navy's activities.

We assume that the acoustic exposures sufficient to trigger onset PTS (or TTS) would be accompanied by behavioral responses and/or physiological stress responses, although the sound characteristics that correlate with specific stress responses in marine mammals are poorly understood. However, as discussed above in the ''Behavioral Responses'' section, we would not expect the Navy's generally short-term, intermittent, and (in the case of sonar) transitory activities to create conditions of long-term, continuous noise leading to long-term physiological stress responses in marine mammals.

As discussed previously, marine mammals (especially beaked whales) 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 mechanism of this potential response, behavioral or physiological, is not known. When naval exercises have been associated with strandings in the past, it has typically been when three or more vessels are operating simultaneously, in the presence of a strong surface duct, and in areas of constricted channels, semi-enclosed areas, and/or steep bathymetry. While these features certainly do not define the only factors that can contribute to a stranding, and while they need not all be present in their aggregate to increase the likelihood of a stranding, it is worth noting that they are not all present in the GOA TMAA, which only has a strong surface duct present during the winter, and does not have bathymetry or constricted channels of the type that have been present in the sonar associated strandings. When this is combined with consideration of the number of hours of active sonar training that will be conducted and the total

duration of all training exercises (a maximum of 21 days once a year), we believe that the probability that this will occur is small and we have not authorized this type of take to occur. Lastly, 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.

As stated previously, there have been no recorded Navy vessel strikes of any marine mammals during training in the GOA Study Area to date, nor were takes by injury or mortality resulting from vessel strike predicted in the Navy's analysis.

Group and Species-Specific Analysis

Predicted effects on marine mammals from exposures to sonar and other active acoustic sources and explosions during annual training activities are shown in Table 11. The vast majority of predicted exposures (greater than 99 percent) are expected to be Level B harassment (non-injurious TTS and behavioral reactions) from sonar and other active acoustic sources at relatively low received levels (Table 12). The acoustic analysis predicts the majority of marine mammal species in the Study Area would not be exposed to explosive (impulsive) sources associated with training activities. Only Dall's porpoise is predicted to have Level B (TTS) exposures resulting from explosives, and only a limited number (4) of Dall's porpoise are expected to have injurious take (PTS), which are from explosions. There are no lethal takes predicted for any marine mammal species for the GOA activities.

The analysis below may in some cases (*e.g.,* mysticetes, porpoises, pinnipeds) address species collectively if they occupy the same functional hearing group (*i.e.,* low, mid, and high-frequency cetaceans and pinnipeds in water), have similar hearing capabilities, and/or are known to generally behaviorally respond similarly to acoustic stressors. Where there are meaningful differences between species or stocks in anticipated individual responses to activities, impact of expected take on the population due to differences in population status, or impacts on habitat, they will either be described within the section or the species will be included as a separate sub-section.

Mysticetes—The Navy's acoustic analysis predicts that 2,923 instances of Level B harassment of mysticete whales may occur in the Study Area each year from sonar and other active acoustic sources during training activities. Annual species-specific take estimates are as follows: 3 North Pacific right whales (Eastern North Pacific stock), 69 humpback whales (Central North Pacific, Western North Pacific, and CA/OR/WA stocks), 47 blue whales (Eastern North Pacific stock), 1,291 fin whales (Northeast Pacific stock), 6 sei whales (Eastern North Pacific stock), and 43 minke whales (Alaska stock). Of these species, humpback (Western North Pacific DPS and Mexico DPS), blue, fin, sei, and North Pacific right whales are listed as threatened or endangered under the ESA and depleted under the MMPA. NMFS issued a Biological Opinion concluding that the issuance of the rule and subsequent LOA are likely to adversely affect, but are not likely to jeopardize, the continued existence of the threatened and endangered species under NMFS' jurisdiction and are not likely to result in the destruction or adverse modification of critical habitat in the GOA TMAA Study Area (there is no designated critical habitat for mysticetes in the Study Area.). Based on the distribution information presented in the LOA application, it is highly unlikely that gray whales would be encountered in the Study Area during events involving use of sonar and other active acoustic sources. The acoustic analysis did not predict any takes of gray whales and NMFS is not authorizing any takes of this species.

Generally, these represent a limited number of takes relative to population estimates for most mysticete stocks in the Study Area. When the numbers of behavioral takes are compared to the estimated stock abundance and if one assumes that each take happens to a separate animal, less than approximately 10 percent of each of these stocks, with the exception of the Northeast Pacific stock of fin whale and the Alaska stock of minke whale, would be behaviorally harassed during the course of a year. There currently are no reliable population estimates for the Northeast Pacific stock of fin whale and the Alaska stock of minke whale because only portions of the stocks' range have been surveyed (Muto and Angliss, 2016). However, NMFS believes the portion of these stocks expected to be taken is relatively small. Older provisional surveys in small subsets of the Minke range (Bering shelf and shelf and nearshore waters from Kenai Fjords to the Aleutians) showed partial abundances or 389–2,020 and 1,233, respectively, suggesting numbers larger than the sum of those if all areas in the Alaska range were surveyed. A provisional estimate of the minimum population of portion of the fin whale range west of the Kenai peninsula (about a third of the range) is 1,368 and earlier estimates of multiple subsets of the portion of the population east of the Kenai peninsula were in the thousands, suggesting that the abundance of the full population is at least more than several thousand. Because the estimates given above represent the total number of exposures and not necessarily the number of individuals exposed, it is more likely that fewer individuals would be taken, but a subset would be taken more than one time per year. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period.

Level B harassment takes are anticipated to be in the form of TTS and behavioral reactions and no injurious takes of North Pacific right, humpback, blue, fin, minke, or sei whales from sonar and other active acoustic stressors or explosives are expected. The majority of acoustic effects to mysticetes from sonar and other active sound sources during training activities would be primarily from anti-submarine warfare events involving surface ships and hull mounted sonar. Research and observations show that if mysticetes are exposed to sonar or other active acoustic sources they may react in a number of ways depending on the characteristics of the sound source, their experience with the sound source, and whether they are migrating or on seasonal grounds (*i.e.,* breeding or feeding). Reactions may include alerting, breaking off feeding dives and surfacing, diving or swimming away, or no response at all (Richardson, 1995; Nowacek, 2007; Southall *et al.,* 2007; Finneran and Jenkins, 2012). Richardson *et al.* (1995) noted that avoidance (temporary displacement of an individual from an area) reactions are the most obvious manifestations of disturbance in marine mammals. Avoidance is qualitatively different from the startle or 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. Additionally, migrating animals may ignore a sound source, or divert around the source if it is in their path.

Specific to U.S. Navy systems using low frequency sound, studies were undertaken in 1997–98 pursuant to the Navy's Low Frequency Sound Scientific Research Program. These studies found only short-term responses to low frequency sound by mysticetes (fin, blue, and humpback whales) including changes in vocal activity and avoidance

of the source vessel (Clark, 2001; Miller *et al.,* 2000; Croll *et al.,* 2001; Fristrup *et al.,* 2003; Nowacek *et al.,* 2007). Baleen whales exposed to moderate low-frequency signals demonstrated no variation in foraging activity (Croll *et al.,* 2001). Low-frequency signals of the Acoustic Thermometry of Ocean Climate sound source were not found to affect dive times of humpback whales in Hawaiian waters (Frankel and Clark, 2000).

Specific to mid-frequency sound, studies by Melcón *et al.* (2012) in the Southern California Bight found that the likelihood of blue whale low-frequency calling (usually associated with feeding behavior) decreased with an increased level of MFAS, beginning at a SPL of approximately 110–120 dB re 1 µPa. However, it is not known whether the lower rates of calling actually indicated a reduction in feeding behavior or social contact since the study used data from remotely deployed, passive acoustic monitoring buoys. Results from a behavioral response study in Southern California waters indicated that in some cases and at low received levels, tagged blue whales responded to MFAS but that those responses were mild and there was a quick return to their baseline activity (Southall *et al.,* 2011; Southall *et al.,* 2012b). Blue whales responded to a mid-frequency sound source, with a source level between 160 and 210 dB re 1 µPa at 1 m and a received sound level up to 160 dB re 1 µPa, by exhibiting generalized avoidance responses and changes to dive behavior during the exposure experiments (CEE) (Goldbogen *et al.,* 2013). However, reactions were not consistent across individuals based on received sound levels alone, and likely were the result of a complex interaction between sound exposure factors such as proximity to sound source and sound type (MFAS simulation vs. pseudo-random noise), environmental conditions, and behavioral state. Surface feeding whales did not show a change in behavior during CEEs, but deep feeding and non-feeding whales showed temporary reactions that quickly abated after sound exposure. Distances of the sound source from the whales during CEEs were sometimes less than a mile. Blue whales have been documented exhibiting a range of foraging strategies for maximizing feeding dependent on the density of their prey at a given location (Goldbogen *et al.,* 2015), so it may be that a temporary behavioral reaction or avoidance of a location where feeding was occurring is not meaningful to the life history of an animal. The findings from Goldbogen *et al.* (2013) and Melcón *et al.* (2012) are generally consistent with the Navy's criteria and thresholds for predicting behavioral effects to mysticetes from sonar and other active acoustic sources used in the quantitative acoustic effects analysis for GOA. The Navy's behavioral response function predicts the probability of a behavioral response that rises to a Level B harassment take for individuals exposed to a received SPL of 120 dB re 1 µPa or greater, with an increasing probability of reaction with increased received level as demonstrated in Melcón *et al.* (2012).

High-frequency systems are notably outside of mysticetes' ideal hearing and vocalization range. Therefore, mysticetes are unlikely to be able to detect higher-frequency systems and these systems would not interfere with their communication or detection of biologically relevant sounds or cause a significant behavioral reaction.

Most Level B harassments to mysticetes from sonar in the Study Area would result from received levels less than 156 dB SPL. Therefore, the majority of Level B harassment takes are expected to be in the form of milder responses (*i.e.,* lower-level exposures that still rise to the level of take, but would likely be less severe in the range of responses that qualify as take) of a generally short duration. As mentioned earlier in this section, we anticipate more severe effects from takes when animals are exposed to higher received levels. Most low-frequency (mysticetes) cetaceans observed in studies usually avoided sound sources at levels of less than or equal to 160 dB re 1µPa. Occasional milder behavioral reactions are unlikely to cause long-term consequences for individual animals or populations. Even if sound exposure were to be concentrated in a relatively small geographic area over a long period of time (*e.g.,* days or weeks during major training exercises), we would expect that some individual whales would avoid areas where exposures to acoustic stressors are at higher levels. For example, Goldbogen *et al.* (2013) indicated some horizontal displacement of deep foraging blue whales in response to simulated MFA sonar. Given these animals' mobility and large ranges, we would expect these individuals to temporarily select alternative foraging sites nearby until the exposure levels in their initially selected foraging area have decreased. Therefore, even temporary displacement from initially selected foraging habitat is not expected to impact the fitness of any individual animals because we would expect equivalent foraging to be available in close proximity. Because we do not expect any fitness consequences any individual animals, we do not expect any population level effects from these behavioral responses.

As explained above, recovery from a threshold shift (TTS) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Finneran and Schlundt, 2010; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b). However, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal's hearing of biologically relevant sounds. Furthermore, the implementation of mitigation and the sightability of mysticetes (due to their large size) reduces the potential for a significant behavioral reaction or a threshold shift to occur.

Overall, the number of predicted behavioral reactions is low and occasional behavioral reactions are unlikely to cause long-term consequences for individual animals or populations. This assessment of long-term consequences is based in part on findings from ocean areas where the Navy has been intensively training and testing with sonar and other active acoustic sources for decades. While there are many factors such as the end of large-scale commercial whaling complicating any analysis, there is no data suggesting any long-term consequences to mysticetes from exposure to sonar and other active acoustic sources. On the contrary, there are findings suggesting mysticete populations are increasing in the two primary locations (Southern California and Hawaii) where the Navy's most intensively used range complexes are located. These findings include: (1) Calambokidis *et al.* (2009b) indicating a significant upward trend in abundance of blue whales in Southern California; (2) the recovery of gray whales that migrate through the Navy's SOCAL Range Complex twice a year; (3) work by Moore and Barlow (2011) indicating evidence of increasing fin whale abundance in the California Current

area, which includes the SOCAL Range Complex; (4) the range expansion and increasing presence of Bryde's whales south of Point Conception in Southern California (Kerosky *et al.,* 2012); and (5) the ocean area contained within the Hawaii Range Complex continuing to function as a critical breeding, calving, and nursing area to the point at which the overall humpback whale population in the North Pacific is now greater than some prior estimates of pre-whaling abundance (Barlow *et al.,* 2011).

As discussed in the ''Consideration of Time/Area Limitations'' section of this rule, a biologically important feeding area has been identified for North Pacific right whale (feeding area) within a small portion of the GOA TMAA (Ferguson *et al.,* 2015). The Navy and NMFS anticipate that proposed training activities likely would have temporal overlap but limited spatial overlap with this BIA. Given the limited spatial overlap, it is unlikely that Navy training would have any biologically meaningful effect on North Pacific right whale feeding behavior in these areas. However, given their small population size, the rarity of their detections and general lack of sightings within the GOA TMAA, and the extremely limited current information about this species, NMFS is requiring a North Pacific right whale ''Cautionary Area'' between June and September in the overlapping 2,051 km^2 portion of the North Pacific right whale feeding area, in which no hull-mounted sonar or explosives would be used within the portion of the feeding area that overlaps the Navy's GOA TMAA during those months. In the event of national security needs, the Navy would be required to seek approval in advance from the Commander, U.S. Third Fleet prior to conducting training activities using sonar or explosives. NMFS believes that implementation of this North Pacific right whale Cautionary Area within the GOA TMAA may provide additional protection of this species and stock beyond the mitigation measures already proposed by the Navy, potentially lessening the anticipated impacts even further.

In summary, the GOA TMAA activities are not expected to adversely impact annual rates of recruitment or survival of mysticete whales.

Sperm Whales—The Navy's acoustic analysis indicates that 98 instances of Level B harassment of sperm whales (North Pacific stock) may occur in the Study Area each year from sonar or other active acoustic stressors during training activities. Sperm whales are listed as endangered under the ESA and depleted under the MMPA. There are currently no reliable abundance estimates for this stock (Muto and Angliss, 2016). Although they believed it to be positively biased, the last estimate (Kato and Miyashita (1998)) was 102,112 sperms whales in the western North Pacific; the number in Alaska waters is unknown. These Level B harassment takes are anticipated to be in the form of TTS and behavioral reactions and no injurious takes of sperm whales from sonar and other active acoustic stressors or explosives were requested or authorized. Sperm whales have shown resilience to acoustic and human disturbance, although they may react to sound sources and activities within a few kilometers. Sperm whales that are exposed to activities that involve the use of sonar and other active acoustic sources may alert, ignore the stimulus, avoid the area by swimming away or diving, or display aggressive behavior (Richardson, 1995; Nowacek, 2007; Southall *et al.,* 2007; Finneran and Jenkins, 2012). Some (but not all) sperm whale vocalizations might overlap with the MFAS/HFAS TTS frequency range, which could 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. Recovery from a threshold shift (TTS) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b; Finneran and Schlundt, 2010). Here, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal's hearing of biologically relevant sounds. No sperm whales are predicted to be exposed to MFAS/HFAS sound levels associated with PTS or injury.

The majority of Level B harassment takes are expected to be in the form of mild responses (low-level exposures) and of a generally short duration. Relative to the last known population size, the number of anticipated Level B harassment takes is very limited. Because the estimates given above represent the total number of exposures and not necessarily the number of individuals exposed, it is more likely that fewer individuals would be taken, but a subset would be taken more than one time per year. In the ocean, the use of sonar and other active acoustic sources is transient and is unlikely to repeatedly expose the same population of animals over a short period. Overall, the number and nature of predicted behavioral reactions are unlikely to cause long-term consequences for individual animals or populations. The GOA activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors for sperm whales, and there is no designated critical habitat in the Study Area. Consequently, the activities are not expected to adversely impact annual rates of recruitment or survival of sperm whales.

Dolphins and Small Whales—The Navy's acoustic analysis predicts the following instances of Level B harassment of delphinids (dolphins and small whales) each year from sonar, other active acoustic sources, and explosives associated with training activities in the Study Area: 389 killer whales (Alaska Resident; Eastern North Pacific Offshore; AT1 Transient; and GOA, Aleutian Island, and Bearing Sea Transient stocks) and 981 Pacific white-sided dolphins (North Pacific stock). These represent a limited number of takes relative to population estimates for delphinid stocks in the Study Area. When the numbers of behavioral takes are compared to the estimated stock abundance and if one assumes that each take happens to a separate animal, less than 15 percent of each of the killer whale stocks and less than 5 percent of the North Pacific stock of Pacific white-sided dolphin would be behaviorally harassed during the course of a year. More likely, slightly fewer individuals would be harassed, but a subset would be harassed more than one time during the course of the year.

All of these takes are anticipated to be in the form of Level B harassment (TTS and behavioral reaction) and no injurious takes of delphinids from sonar and other active acoustic stressors or explosives are requested or proposed for authorization. Further, the majority of takes are anticipated to be by Level B harassment in the form of mild responses. Research and observations show that if delphinids are exposed to

sonar or other active acoustic sources they may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the acoustic exposure. Delphinids may not react at all until the sound source is approaching within a few hundred meters to within a few kilometers depending on the environmental conditions and species. Delphinids that are exposed to activities that involve the use of sonar and other active acoustic sources may alert, ignore the stimulus, change their behaviors or vocalizations, avoid the sound source by swimming away or diving, or be attracted to the sound source (Richardson, 1995; Nowacek, 2007; Southall *et al.,* 2007; Finneran and Jenkins, 2012).

Research has demonstrated that Alaska Resident killer whales may routinely move over long large distances (Andrews and Matkin, 2014; Fearnbach *et al.,* 2013). In a similar documented long-distance movement, an Eastern North Pacific Offshore stock killer whale tagged off San Clemente Island, California, moved (over a period of 147 days) to waters off northern Mexico, then north to Cook Inlet, Alaska, and finally (when the tag ceased transmitting) to coastal waters off Southeast Alaska (Falcone and Schorr, 2014). Given these findings, temporary displacement due to avoidance of training activities is therefore unlikely to have biological significance to individual animals.

Delphinid species generally travel in large pods and should be visible from a distance, allowing for a high level of mitigation effectiveness, which has been considered quantitatively in the calculation of Level A harassment take, but is also expected to potentially reduce the occurrences of more severe behavioral impacts resulting from higher level exposures. Many of the recorded delphinid vocalizations overlap with the MFAS/HFAS TTS frequency range (2–20 kHz); however, as noted above, NMFS does not anticipate TTS of a serious degree or extended duration to occur as a result of exposure to MFAS/HFAS. Recovery from a threshold shift (TTS) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Finneran and Schlundt, 2010; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b). Here, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal's hearing of biologically relevant sounds.

The predicted effects to delphinids are unlikely to cause long-term consequences for individual animals or populations. The GOA TMAA activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors for delphinids. Stocks of delphinid species found in the Study Area are not depleted under the MMPA, nor are they listed under the ESA. Consequently, the activities are not expected to adversely impact rates of recruitment or survival of delphinid species.

Porpoises—The Navy's acoustic analysis predicts that 8,270 instances of Level B harassment (TTS and behavioral reactions) of Dall's porpoise (Alaska stock) and 3,705 instances of Level B harassment of harbor porpoise (GOA and Southeast Alaska stocks) may occur each year from sonar and other active acoustic sources and explosives associated with training activities in the Study Area. Acoustic analysis also predicted that 4 Dall's porpoises might be exposed to sound levels from sonar and other active acoustic stressors and explosives likely to result in PTS or injury (Level A harassment). These represent a limited number of takes relative to population estimates for porpoise stocks in the Study Area (Table 6 of the proposed rule (81 FR 9957)). When the numbers of takes for Dall's and harbor porpoise are compared to their respective estimated stock abundances and if one assumes that each take happens to a separate animal, less than 10 percent of the Alaska stock of Dall's porpoise, and less than 10 percent of the GOA and Southeast Alaska stocks of harbor porpoise would be harassed (behaviorally) during the course of a year. Because the estimates given above represent the total number of exposures and not necessarily the number of individuals exposed, it is more likely that fewer individuals would be taken, but a subset would be taken more than one time per year.

Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic (Richardson, 1995; Nowacek, 2007; Southall *et al.,* 2007). The number of Dall's and harbor porpoise behaviorally harassed by exposure to MFAS/HFAS in the Study Area is generally higher than the other species. For Dall's porpoise, this is due to their high density in the area. For harbor porpoises, this is due to the low Level B harassment threshold (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 harassment), which essentially makes the ensonified area of effects significantly larger than for the other species. However, the fact that the threshold is a step function and not a curve (and assuming uniform density) means that the vast majority of the takes occur in the very lowest levels that exceed the threshold (it is estimated that approximately 80 percent of the takes are from exposures to 120 dB–126 dB), which means that anticipated behavioral effects are not expected to be severe (*e.g.,* temporary avoidance). 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 an animal. Animals that do not exhibit a significant behavioral reaction would likely recover from any incurred costs, which reduces the likelihood of long-term consequences, such as reduced fitness, for the individual or population.

Animals that experience hearing loss (TTS or PTS) may have reduced ability to detect relevant sounds such as predators, prey, or social vocalizations. Some porpoise vocalizations might overlap with the MFAS/HFAS TTS frequency range (2–20 kHz). Recovery from a threshold shift (TTS; partial hearing loss) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b; Finneran and Schlundt, 2010). More severe shifts may not fully recover and thus would be considered PTS. However, here, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies

equally, so some threshold shifts may not interfere with an animal hearing biologically relevant sounds. The likely consequences to the health of an individual that incurs PTS can range from mild to more serious, depending upon the degree of PTS and the frequency band it is in, and many animals are able to compensate for the shift, although it may include energetic costs. Furthermore, likely avoidance of intense activity and sound coupled with mitigation measures would further reduce the potential for severe PTS exposures to occur. If a marine mammal is able to approach a surface vessel within the distance necessary to incur PTS, the likely speed of the vessel (nominal 10–15 knots) would make it very difficult for the animal to remain in range long enough to accumulate enough energy to result in more than a mild case of PTS.

Harbor porpoises have been observed to be especially sensitive to human activity (Tyack *et al.,* 2011; Pirotta *et al.,* 2012). The information currently available regarding harbor porpoises suggests a very low threshold level of response for both captive (Kastelein *et al.,* 2000; Kastelein *et al.,* 2005) and wild (Johnston, 2002) animals. Southall *et al.* (2007) concluded that harbor porpoises are likely sensitive to a wide range of anthropogenic sounds at low received levels (approximately 90 to 120 dB). Research and observations of harbor porpoises for other locations show that this small species is wary of human activity and will display profound avoidance behavior for anthropogenic sound sources in many situations at levels down to 120 dB re 1 μPa (Southall, 2007). Harbor porpoises routinely avoid and swim away from large motorized vessels (Barlow *et al.,* 1988; Evans *et al.,* 1994; Palka and Hammond, 2001; Polacheck and Thorpe, 1990). The vaquita, which is closely related to the harbor porpoise in the Study Area, appears to avoid large vessels at about 2,995 ft (913 m) (Jaramillo-Legorreta *et al.,* 1999). The assumption is that the harbor porpoise would respond similarly to large Navy vessels, possibly prior to commencement of sonar or explosive activity (*i.e.,* pre-activity avoidance). Harbor porpoises may startle and temporarily leave the immediate area of the training until after the event ends.

ASW training exercises using MFAS/HFAS generally last for 2–16 hours, and may have intervals of non-activity in between. In addition, the Navy does not typically conduct ASW exercises in the same locations. Given the average length of ASW exercises (times of continuous sonar use) and typical vessel speed, combined with the fact that the majority of porpoises in the Study Area would not likely remain in an area for successive days, it is unlikely that an animal would be exposed to MFAS/HFAS at levels likely to result in a substantive response (*e.g.,* interruption of feeding) that would then be carried on for more than one day or on successive days. Thompson *et al.* (2013) showed that seismic surveys conducted over a 10-day period in the North Sea did not result in the broad-scale displacement of harbor porpoises away from preferred habitat. The harbor porpoises were observed to leave the area at the onset of survey, but returned within a few hours, and the overall response of the porpoises decreased over the 10-day period.

Considering the information above, the predicted effects to Dall's and harbor porpoise are unlikely to cause significant long-term consequences for individual animals or the population (the 4 potential takes by PTS for Dall's porpoise are anticipated to be of a small degree in a narrow frequency band that that would not have significant impacts on individual fitness). The Navy's training activities in the GOA TMAA are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors for Dall's and harbor porpoise. Stocks of Dall's and harbor porpoise are not listed as depleted under the MMPA. Consequently, the activities are not expected to adversely impact annual rates of recruitment or survival of porpoises.

Beaked Whales—Acoustic analysis predicts that 200 Baird's beaked whales (Alaska stock), 1,271 Cuvier's beaked whales (Alaska stock), and 576 Stejneger's beaked whales (Alaska stock) will be taken annually by Level B harassment from exposure to sonar and other active acoustic stressors. These takes are anticipated to be in the form of Level B harassment (mainly all behavioral reaction and only 2 TTS (Cuvier's beaked whale)) and no injurious takes of beaked whales from sonar and other active acoustic stressors or explosives are requested or authorized. Because the estimates given above represent the total number of exposures and not necessarily the number of individuals exposed, it is more likely that fewer individuals would be taken, but a subset would be taken more than one time per year. There are currently no reliable abundance estimates for Alaska stocks of Baird's, Cuvier's, and Stejner's beaked whales (Muto and Angliss, 2016). However, the ranges of all three stocks are very large compared to the TMAA (Cuvier's is the smallest, occupying all of the GOA and south of the Canadian border and west past the southern edge of the Kenai peninsula, while Baird's and Stejner's range even farther south and also cross north over the Kenai peninsula), which means that the impacts anticipated within a miniscule portion of the stocks' ranges and accrued over no more than 21 days would be expected to be relatively small compared to the population.

As is the case with harbor porpoises, beaked whales have been shown to be particularly sensitive to sound and therefore have been assigned a lower harassment threshold based on observations of wild animals by McCarthy *et al.* (2011) and Tyack *et al.* (2011). The fact that the Level B harassment threshold is a step function (the Navy has adopted an unweighted 140 dB re 1 μPa SPL threshold for significant behavioral effects for all beaked whales) and not a curve (and assuming uniform density) means that the vast majority of the takes expected to occur in the very lowest levels that exceed the threshold (it is estimated that approximately 80 percent of the takes are from exposures to 140 dB to 146 dB), which means that the anticipated effects for the majority of exposures are not expected to be severe (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 an animal). Further, Moretti *et al.* (2014) recently derived an empirical risk function for Blainville's beaked whale that predicts there is a 0.5 probability of disturbance at a received level of 150 dB (confidence interval: 144–155), suggesting that in some cases the current Navy step function may over-estimate the effects of an activity using sonar on beaked whales. Irrespective of the Moretti *et al.* (2014) risk function, NMFS' analysis assumes that all of the beaked whale Level B harassment takes that were proposed for authorization will occur, and we base our negligible impact determination, in part, on the fact that these exposures would mainly occur at the very lowest end of the 140-dB Level B harassment threshold where behavioral effects are expected to be much less severe and generally temporary in nature.

Behavioral responses can range from a mild orienting response, or a shifting of attention, to flight and panic (Richardson, 1995; Nowacek, 2007; Southall *et al.,* 2007; Finneran and Jenkins, 2012). Research has also shown that beaked whales are especially sensitive to the presence of human activity (Tyack *et al.,* 2011; Pirotta *et al.,*

2012). Beaked whales have been documented to exhibit avoidance of human activity or respond to vessel presence (Pirotta *et al.,* 2012). Beaked whales were observed to react negatively to survey vessels or low altitude aircraft by quick diving and other avoidance maneuvers, and none were observed to approach vessels (Wursig *et al.,* 1998). Some beaked whale vocalizations may overlap with the MFAS/HFAS TTS frequency range (2–20 kHz); however, as noted above, NMFS does not anticipate TTS of a serious degree or extended duration to occur as a result of exposure to MFA/HFAS. Recovery from a threshold shift (TTS) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b; Finneran and Schlundt, 2010). Here, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies equally, so some threshold shifts may not interfere with an animal's hearing of biologically relevant sounds.

It has been speculated for some time that beaked whales might have unusual sensitivities to sonar sound due to their likelihood of stranding in conjunction with MFAS use. Research and observations show that if beaked whales are exposed to sonar or other active acoustic sources they may startle, break off feeding dives, and avoid the area of the sound source to levels of 157 dB re 1 µPa, or below (McCarthy *et al.,* 2011). Acoustic monitoring during actual sonar exercises revealed some beaked whales continuing to forage at levels up to 157 dB re 1 µPa (Tyack *et al.,* 2011). Stimpert *et al.* (2014) tagged a Baird's beaked whale, which was subsequently exposed to simulated MFAS. Changes in the animal's dive behavior and locomotion were observed when received level reached 127 dB re 1µPa. However, Manzano-Roth *et al.* (2013) found that for beaked whale dives that continued to occur during MFAS activity, differences from normal dive profiles and click rates were not detected with estimated received levels up to 137 dB re 1 µPa while the animals were at depth during their dives. And in research done at the Navy's fixed tracking range in the Bahamas, animals were observed to leave the immediate area of the anti-submarine warfare training exercise (avoiding the sonar acoustic footprint at a distance where the received level was ''around 140 dB'' SPL, according to Tyack *et al.* (2011)) but return within a few days after the event ended (Claridge and Durban, 2009; Moretti *et al.,* 2009, 2010; Tyack *et al.,* 2010, 2011; McCarthy *et al.,* 2011). Tyack *et al.* (2011) report that, in reaction to sonar playbacks, most beaked whales stopped echolocating, made long slow ascent to the surface, and moved away from the sound. A similar behavioral response study conducted in Southern California waters during the 2010–2011 field season found that Cuvier's beaked whales exposed to MFAS displayed behavior ranging from initial orientation changes to avoidance responses characterized by energetic fluking and swimming away from the source (DeRuiter *et al.,* 2013b). However, the authors did not detect similar responses to incidental exposure to distant naval sonar exercises at comparable received levels, indicating that context of the exposures (*e.g.,* source proximity, controlled source ramp-up) may have been a significant factor. The study itself found the results inconclusive and meriting further investigation. Cuvier's beaked whale responses suggested particular sensitivity to sound exposure as consistent with results for Blainville's beaked whale.

Populations of beaked whales and other odontocetes on the Bahamas and other Navy fixed ranges that have been operating for decades, appear to be stable. Behavioral reactions (avoidance of the area of Navy activity) seem likely in most cases if beaked whales are exposed to anti-submarine sonar within a few tens of kilometers, especially for prolonged periods (a few hours or more) since this is one of the most sensitive marine mammal groups to anthropogenic sound of any species or group studied to date and research indicates beaked whales will leave an area where anthropogenic sound is present (Tyack *et al.,* 2011; De Ruiter *et al.,* 2013; Manzano-Roth *et al.,* 2013; Moretti *et al.,* 2014). Research involving tagged Cuvier's beaked whales in the SOCAL Range Complex reported on by Falcone and Schorr (2012, 2014) indicates year-round prolonged use of the Navy's training and testing area by these beaked whales and has documented movements in excess of hundreds of kilometers by some of those animals. Given that some of these animals may routinely move hundreds of kilometers as part of their normal pattern, leaving an area where sonar or other anthropogenic sound is present may have little, if any, cost to such an animal. Photo identification studies in the SOCAL Range Complex, a Navy range that is utilized for training and testing more frequently than the GOA TMAA Study Area, have identified approximately 100 individual Cuvier's beaked whale individuals with 40 percent having been seen in one or more prior years, with re-sightings up to 7 years apart (Falcone and Schorr, 2014). These results indicate long-term residency by individuals in an intensively used Navy training and testing area, which may also suggest a lack of long-term consequences as a result of exposure to Navy training and testing activities.

Based on the findings above, it is clear that the Navy's long-term ongoing use of sonar and other active acoustic sources has not precluded beaked whales from also continuing to inhabit those areas. In summary, based on the best available science, the Navy and NMFS believe that any TTS or behavioral responses of beaked whales due to sonar and other active acoustic training activities would generally not have long-term consequences for individuals or populations. NMFS notes that Claridge (2013) speculated that sonar use in a Bahamas range could have ''a possible population-level effect'' on beaked whales based on lower abundance in comparison to control sites. In summary, Claridge suggested that lower reproductive rates observed at the Navy's Atlantic Undersea Test and Evaluation Center (AUTEC), when compared to a control site, were due to stressors associated with frequent and repeated use of Navy sonar. However, it is important to note that there were some relevant shortcomings of this study. For example, all of the re-sighted whales during the 5-year study at both sites were female, which Claridge acknowledged can lead to a negative bias in the abundance estimation. There was also a reduced effort and shorter overall study period at the AUTEC site that failed to capture some of the emigration/immigration trends identified at the control site. Furthermore, Claridge assumed that the two sites were identical and therefore should have equal potential abundances, when in reality, there were notable physical differences. The author also acknowledged that ''information

currently available cannot provide a quantitative answer to whether frequent sonar use at (the Bahamas range) is causing stress to resident beaked whales,'' and cautioned that the outcome of ongoing studies ''is a critical component to understanding if there are population-level effects.'' It is also worth noting that the frequency and intensity of sonar activity at the Bahamas range is greater than in the GOA TMAA, and the bathymetry and other physical characteristics of the training area are different.

Moore and Barlow (2013) have noted a decline in beaked whale populations in a broad area of the Pacific Ocean area out to 300 nm from the coast and extending from the Canadian-U.S. border to the tip of Baja Mexico. There are scientific caveats and limitations to the data used for that analysis, as well as oceanographic and species assemblage changes on the U.S. Pacific coast not thoroughly addressed. Although Moore and Barlow (2013) have noted a decline in the overall beaked whale population along the Pacific coast, in the small fraction of that area where the Navy has been training and testing with sonar and other systems for decades (the Navy's SOCAL Range Complex), higher densities and long-term residency by individual Cuvier's beaked whales suggest that the decline noted elsewhere is not apparent where Navy sonar use is most intense. Navy sonar training and testing is not conducted along a large part of the U.S. west coast from which Moore and Barlow (2013) drew their survey data. In Southern California, based on a series of surveys from 2006 to 2008 and a high number encounter rate, Falcone *et al.* (2009) suggested the ocean basin west of San Clemente Island may be an important region for Cuvier's beaked whales given the number of animals encountered there. Follow-up research (Falcone and Schorr, 2012, 2014) in this same location suggests that Cuvier's beaked whales may have population sub-units with higher than expected residency, particularly in the Navy's instrumented Southern California Anti-Submarine Warfare Range. Encounters with multiple groups of Cuvier's and Baird's beaked whales indicated not only that they were prevalent on the range where Navy routinely trains and tests, but also that they were potentially present in much higher densities than had been reported for anywhere along the U.S. west coast (Falcone *et al.,* 2009, Falcone and Schorr, 2012). This finding is also consistent with concurrent results from passive acoustic monitoring that estimated regional Cuvier's beaked whale densities were higher where Navy trains in the SOCAL training and testing area than indicated by NMFS' broad scale visual surveys for the U.S. west coast (Hildebrand and McDonald, 2009).

NMFS also considered New *et al.* (2013) and their mathematical model simulating a functional link between foraging energetics and requirements for survival and reproduction for 21 species of beaked whales. However, NMFS concluded that the New *et al.* (2013) model lacks critical data and accurate inputs necessary to form valid conclusions specifically about impacts of anthropogenic sound from Navy activities on beaked whale populations. The study itself notes the need for ''future research,'' identifies ''key data needs'' relating to input parameters that ''particularly affected'' the model results, and states only that the use of the model ''in combination with more detailed research'' *could* help predict the effects of management actions on beaked whale species. In short, information is not currently available to specifically support the use of this model in a project-specific evaluation of the effects of Navy activities on the impacted beaked whale species in GOA.

No beaked whales are predicted in the acoustic analysis to be exposed to sound levels associated with PTS, other injury, or mortality. After years of the Navy conducting similar activities in the GOA Study Area without incident, NMFS does not expect strandings, injury, or mortality of beaked whales to occur as a result of training activities. Stranding events coincident with Navy MFAS use in which exposure to sonar is believed to have been a contributing factor were detailed in the ''Stranding and Mortality'' section of the proposed rule (81 FR 9950, 9970–76; February 26, 2016). However, for some of these stranding events, a causal relationship between sonar exposure and the stranding could not be clearly established (Cox *et al.,* 2006). In other instances, sonar was considered only one of several factors that, in their aggregate, may have contributed to the stranding event (Freitas, 2004; Cox *et al.,* 2006). Because of the association between tactical MFAS use and a small number of marine mammal strandings, the Navy and NMFS have been considering and addressing the potential for strandings in association with Navy activities for years. In addition to effective mitigation measures intended to more broadly minimize impacts to marine mammals, the reporting requirements set forth in this rule ensure that NMFS is notified immediately (or as soon as clearance procedures allow) if a stranded marine mammal is found during or shortly after, and in the vicinity of, any Navy training exercise utilizing MFAS, HFAS, or underwater explosive detonations (see General Notification of Injured or Dead Marine Mammals and the Stranding Response Plan in the regulatory text below). Additionally, through the MMPA process (which allows for adaptive management), NMFS and the Navy will determine the appropriate way to proceed in the event that a causal relationship were to be found between Navy activities and a future stranding.

The GOA training activities are not expected to occur in an area/time of specific importance for reproductive, feeding, or other known critical behaviors for beaked whales. None of the Pacific stocks for beaked whale species found in the Study Area are depleted under the MMPA. The degree of predicted Level B harassment is expected to be mild, and no beaked whales are predicted in the acoustic analysis to be exposed to sound levels associated with PTS, other injury, or mortality. Consequently, the activities are not expected to adversely impact annual rates of recruitment or survival of beaked whales.

Pinnipeds—The Navy's acoustic analysis predicts that the following numbers of Level B harassment (TTS and behavioral reaction) may occur annually from sonar and other active acoustic stressors associated with training activities: 621 Steller sea lions (Eastern U.S. and Western U.S. stocks); 5 California sea lions (U.S. stock); 713 northern fur seals (Eastern Pacific stock); 122 northern elephant seals (California Breeding stock); and 2 harbor seals (South Kodiak, and Prince William Sound stocks). These represent a limited number of takes relative to population estimates for pinniped stocks in the Study Area. When the numbers of behavioral takes are compared to the estimated stock abundances, less than 1 percent of each of these stocks would be behaviorally harassed during the course of a year. 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. Based on the distribution information presented in the LOA application, it is highly unlikely that ribbon seals would be encountered in the Study Area during events involving use of sonar and other active acoustic sources or explosives. The acoustic analysis did not predict any takes of ribbon seals and NMFS is not authorizing any takes of this species.

Research has demonstrated that for pinnipeds, as for other mammals, recovery from a threshold shift (TTS) can take a few minutes to a few days, depending on the exposure duration, sound exposure level, and the magnitude of the initial shift, with larger threshold shifts and longer exposure durations requiring longer recovery times (Finneran *et al.,* 2005; Finneran and Schlundt, 2010; Mooney *et al.,* 2009a; Mooney *et al.,* 2009b). However, here, any threshold shifts experienced would be expected to be relatively small because of the unlikelihood that animals will remain within the ensonified area (due to the short duration of the majority of exercises, the speed of the vessels, and the short distance within which the animal would need to approach the sound source) at high levels for the duration necessary to induce larger threshold shifts. Threshold shifts do not necessarily affect all hearing frequencies equally, so threshold shifts may not necessarily interfere with an animal's ability to hear biologically relevant sounds.

Research and observations show that pinnipeds in the water may be tolerant of anthropogenic noise and activity (a review of behavioral reactions by pinnipeds to impulsive and non-impulsive noise can be found in Richardson *et al.,* 1995 and Southall *et al.,* 2007). Available data, though limited, suggest that exposures between approximately 90 and 140 dB SPL do not appear to induce strong behavioral responses in pinnipeds exposed to nonpulse sounds in water (Jacobs and Terhune, 2002; Costa *et al.,* 2003; Kastelein *et al.,* 2006c). Based on the limited data on pinnipeds in the water exposed to multiple pulses (small explosives, impact pile driving, and seismic sources), exposures in the approximately 150 to 180 dB SPL range generally have limited potential to induce avoidance behavior in pinnipeds (Harris *et al.,* 2001; Blackwell *et al.,* 2004; Miller *et al.,* 2004). Zero percent of the takes estimated incidental to the Navy's training activities in the GOA TMAA are expected to result from exposures above 180 dB.

If pinnipeds are exposed to sonar or other active acoustic sources they may react in a number of ways depending on their experience with the sound source and what activity they are engaged in at the time of the acoustic exposure. Pinnipeds may not react at all until the sound source is approaching within a few hundred meters and then may alert, ignore the stimulus, change their behaviors, or avoid the immediate area by swimming away or diving. Houser *et al.* (2013) performed a controlled exposure study involving California sea lions exposed to a simulated MFAS signal. The purpose of this Navy-sponsored study was to determine the probability and magnitude of behavioral responses by California sea lions exposed to differing intensities of simulated MFAS signals. Behavioral reactions included increased respiration rates, prolonged submergence, and refusal to participate, among others. Younger animals were more likely to respond than older animals, while some sea lions did not respond consistently at any level. Houser *et al.'s* findings are consistent with current scientific studies and criteria development concerning marine mammal reactions to MFAS. Effects on pinnipeds in the Study Area that are taken by Level B harassment, on the basis of reports in the literature as well as Navy monitoring from past activities, will likely be limited to reactions such as increased swimming speeds, increased surfacing time, or decreased foraging (if such activity were occurring). Most likely, individuals will simply move away from the sound source and be temporarily displaced from those areas, or not respond at all.

Although less of an issue here because of the short duration of the activity, it is still worth noting that in areas of repeated and frequent acoustic disturbance, some pinnipeds may habituate or learn to tolerate the new baseline or fluctuations in noise level. Habituation can occur when an animal's response to a stimulus wanes with repeated exposure, usually in the absence of unpleasant associated events (Wartzok *et al.,* 2003). While some animals may not return to an area, or may begin using an area differently due to training and testing activities, most animals are expected to return to their usual locations and behavior. Given their documented tolerance of anthropogenic sound (Richardson *et al.,* 1995 and Southall *et al.,* 2007), repeated exposures of individuals (*e.g.,* harbor seals) to levels of sound that may cause Level B harassment are unlikely to result in hearing impairment or to significantly disrupt foraging behavior. As stated above, pinnipeds may habituate to or become tolerant of repeated exposures over time, learning to ignore a stimulus that in the past has not accompanied any overt threat.

Thus, even repeated Level B harassment of some small subset of an overall stock is unlikely to result in any significant realized decrease in fitness to those individuals, and would not result in any adverse impact to the stock as a whole. Evidence from areas where the Navy extensively trains and tests provides some indication of the possible consequences resulting from those proposed activities. In the confined waters of Washington State's Hood Canal where the Navy has been training and intensively testing for decades and harbor seals are present year-round, the population level has remained stable suggesting the area's carrying capacity likely has been reached (Jeffries *et al.,* 2003; Gaydos *et al.,* 2013). Within Puget Sound there are several locations where pinnipeds use Navy structures (*e.g.,* submarines, security barriers) for haulouts. Given that animals continue to choose these areas for their resting behavior, it would appear there are no long-term effects or consequences to those animals as a result of ongoing and routine Navy activities.

Generally speaking, most pinniped stocks in the Study Area are thought to be stable or increasing (Carretta *et al.,* 2014, 2015). No areas of specific importance for reproduction or feeding for pinnipeds have been identified in the Study Area. Western U.S. stocks of Steller sea lions are listed as endangered under the ESA; however, there is no designated critical habitat for Steller sea lions in the Study Area. As a conservative measure, the GOA TMAA boundary zone was specifically drawn to exclude any nearby critical habitat and associated terrestrial, air, or aquatic zones.

In summary, the activities are not expected to adversely impact annual rates of recruitment or survival of pinniped species.

Long-Term Consequences

The best assessment of long-term consequences from training activities will be to monitor the populations over time within a given Navy range complex. A U.S. workshop on Marine Mammals and Sound (Fitch *et al.,* 2011) indicated a critical need for baseline biological data on marine mammal abundance, distribution, habitat, and behavior over sufficient time and space to evaluate impacts from human-generated activities on long-term population survival. The Navy has developed monitoring plans for protected marine mammals occurring on Navy ranges with the goal of assessing the impacts of training and testing activities on marine species and the effectiveness of the Navy's current mitigation practices. Continued monitoring efforts over time will be necessary to completely evaluate the long-term consequences of exposure to noise sources.

Since 2006 across all Navy range complexes (in the Atlantic, Gulf of

Mexico, and the Pacific), there have been more than 80 reports, including Major Exercise Reports, Annual Exercise Reports, and Monitoring Reports. For the Pacific since 2011, there have been 29 monitoring and exercise reports submitted to NMFS to further research goals aimed at understanding the Navy's impact on the environment as it carries out its mission to train and test.

In addition to this multi-year record of reports from across the Navy, there have also been ongoing Behavioral Response Study research efforts (in Southern California and the Bahamas) specifically focused on determining the potential effects from Navy mid-frequency sonar (Southall *et al.,* 2011, 2012; McCarthy *et al.,* 2011; Tyack *et al.,* 2011; DeRuiter *et al.,* 2013b; Goldbogen *et al.,* 2013; Moretti *et al.,* 2014). This multi-year compendium of monitoring, observation, study, and broad scientific research is informative with regard to assessing the effects of Navy training and testing in general. Given that this record involves many of the same Navy training activities being considered for the Study Area and because it includes all the marine mammal taxonomic families and many of the same species, this compendium of Navy reporting is directly applicable to assessing locations such as the GOA TMAA.

In the Hawaii and Southern California Navy training and testing ranges from 2009 to 2012, Navy-funded marine mammal monitoring research completed over 5,000 hours of visual survey effort covering over 65,000 nautical miles, sighted over 256,000 individual marine mammals, took over 45,600 digital photos and 36 hours of digital video, attached 70 satellite tracking tags to individual marine mammals, and collected over 40,000 hours of passive acoustic recordings. In Hawaii alone between 2006 and 2012, there were 21 scientific marine mammal surveys conducted before, during, or after major exercises. This monitoring effort is consistent with other research from these areas in that there have been no direct evidence demonstration that routine Navy training and testing has negatively impacted marine mammal populations inhabiting these Navy ranges. Continued monitoring efforts over time will be necessary to completely evaluate the long-term consequences of exposure to noise sources. Other research findings related to the general topic of long-term impacts are discussed above in the Species-Specific Analysis.

Based on monitoring conducted before, during, and after Navy training and testing events since 2006, NMFS' assessment is that it is unlikely there will be impacts having any long-term consequences to populations of marine mammals as a result of the proposed continuation of training activities in the Study Area. In addition to the analysis presented above, this assessment of likelihood is based on four indicators from areas in the Pacific where Navy training and testing has been ongoing for decades: (1) Evidence suggesting or documenting increases in the numbers of marine mammals present (Calambokidis and Barlow, 2004; Falcone *et al.,* 2009; Hildebrand and McDonald, 2009; Falcone and Shorr, 2012; Calambokidis *et al.,* 2009a; Berman-Kowalewski *et al.,* 2010; Moore and Barlow, 2011; Barlow *et al.,* 2011; Kerosky *et al.,* 2012; Smultea *et al.,* 2013; Širović *et al.,* 2015), (2) examples of documented presence and site fidelity of species and long-term residence by individual animals of some species (Hooker *et al.,* 2002; McSweeney *et al.,* 2007; McSweeney *et al.,* 2010; Martin and Kok, 2011; Baumann-Pickering *et al.,* 2012; Falcone and Schorr, 2014), (3) use of training and testing areas for breeding and nursing activities (Littnan, 2010), and (4) 6 years of comprehensive monitoring data indicating a lack of any observable effects to marine mammal populations as a result of Navy training and testing activities.

To summarize, while the evidence covers most marine mammal taxonomic suborders, it is limited to a few species and only suggestive of the general viability of those species in intensively used Navy training and testing areas (Barlow *et al.,* 2011; Calambokidis *et al.,* 2009b; Falcone *et al.,* 2009; Littnan, 2011; Martin and Kok, 2011; McCarthy *et al.,* 2011; McSweeney *et al.,* 2007; McSweeney *et al.,* 2009; Moore and Barlow, 2011; Tyack *et al.,* 2011; Southall *et al.,* 2012a; Melcon, 2012; Goldbogen, 2013; Baird *et al.,* 2013). However, there is no direct evidence that routine Navy training and testing spanning decades has negatively impacted marine mammal populations at any Navy Range Complex. Although there have been a few strandings associated with use of sonar in other locations (see U.S. Department of the Navy, 2013b), Ketten (2012) has recently summarized, ''to date, there has been no demonstrable evidence of acute, traumatic, disruptive, or profound auditory damage in any marine mammal as the result of anthropogenic noise exposures, including sonar.'' Therefore, based on the best available science (Barlow *et al.,* 2011; Carretta *et al.,* 2011; Falcone *et al.,* 2009; Falcone and Schorr, 2012, 2014; Jeffries *et al.,* 2003; Littnan, 2011; Martin and Kok, 2011; McCarthy *et al.,* 2011; McSweeney *et al.,* 2007; McSweeney *et al.,* 2009; Moore and Barlow, 2011; Tyack *et al.,* 2011; Southall *et al.,* 2012, 2013, 2014; Manzano-Roth *et al.,* 2013; DeRuiter *et al.,* 2013b; Goldbogen *et al.,* 2013; Moretti *et al.,* 2014; Smultea and Jefferson, 2014; Širović *et al.,* 2015), including data developed in the series of more than 80 reports submitted to NMFS, we believe that long-term consequences for individuals or populations are unlikely to result from Navy training activities in the Study Area.

Final Determination

Training activities proposed in the GOA TMAA Study Area would result in mainly Level B and a very small number of Level A harassment takes (for one species), as summarized in Tables 10 and 11. Based on best available science, NMFS concludes that exposures to sound by marine mammal species or stocks due to GOA TMAA activities would result in individuals experiencing primarily short-term (temporary and short in duration) and relatively infrequent effects of the type or severity not expected to be additive. In addition, only a generally small portion of the stocks and species are likely to be exposed.

Marine mammal takes from Navy activities are not expected to impact annual rates of recruitment or survival and will therefore not result in population-level impacts for the following reasons, in summary:

- No mortality is anticipated or authorized, only 4 instances of Level A harassment (resulting in low-level PTS) to Dall's porpoise are likely to occur, and remaining impacts would be within the non-injurious TTS or behavioral effects zones (Level B harassment consisting of generally temporary modifications in behavior).
- As mentioned earlier, 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 animal. For low frequency cetaceans (mysticetes) in the Study Area, the majority (73%) of Level B exposures from hull-mounted sonar (which is responsible for most of the take) will occur at received levels less than 162 dB and from sources over 20km away. Only less than 1% of the takes are expected to result from exposures above 174 dB and closer than 4 km. The majority (63%) of estimated odontocete and pinniped takes from hull-mounted MFAS/HFAS result from exposures to received levels less than 162 dB and from sources over 20 km away. Only less than 2% of the takes are expected to result from exposures above 174 dB and closer than 4 km. For other sonar sources, 98% of the takes result from exposures below 168 dB for

all taxa. As noted previously, in addition to received level, the context of exposures (such as the distance) influences how animals respond—for example, beaked whales exposed to the same received level at a greater distance exhibited a lesser behavioral response (DeRuiter *et al.,* 2012). In short, primarily because of the lower levels and greater distances over which most animals are exposed, the majority of Level B harassment takes are expected to be in the form of milder responses (*i.e.,* lower-level exposures that still rise to the level of a take, but would likely be in the less severe range of responses that qualify as a take), and are not expected to have deleterious impacts on the fitness of any individuals.

- Acoustic disturbances caused by Navy sonar and explosives are short-term, intermittent, and (in the case of sonar) transitory. Even when an animal may be exposed to active sonar more than one time, the intermittent nature of the sonar signal, the signal's low duty cycle (MFAS has a typical ping of every 50 seconds), and the fact that both the vessel and animal are moving, provide only a very small chance that exposure to active sonar for individual animals and stocks would be repeated over extended periods of time. Additionally, the exercises will not last more than a total of 21 days annually. Consequently, we would not expect the Navy's activities to create conditions of long-term, continuous underwater noise leading to habitat abandonment or long-term hormonal or physiological stress responses in marine mammal species or stocks.
- Range complexes where intensive training and testing have been occurring for decades have populations of multiple species with strong site fidelity (including highly sensitive resident beaked whales at some locations) and increases in the number of some species. Populations of beaked whales and other odontocetes in the Bahamas, and in other Navy fixed ranges that have been operating for tens of years, appear to be stable.
- Navy monitoring of Navy-wide activities since 2006 has documented hundreds of thousands of marine mammals on the range complexes and there are only two instances of overt behavioral change that have been observed.
- Navy monitoring of Navy-wide activities since 2006 has documented no demonstrable instances of injury to marine mammal species or stocks as a result of non-impulsive acoustic sources.
- In at least three decades of similar Navy activities, only one instance of injury to one species type of marine mammal (In March 2011; three long-beaked common dolphins off Southern California) has occurred as a known result of training or testing using an impulsive source (underwater explosion). Of note, the time-delay firing underwater explosive training activity implicated in the March 2011 incident was not proposed for the training activities in the GOA Study Area.
- The protective measures described in the ''Mitigation'' section above are designed, and expected, to avoid vessel strike, sound exposures that may cause serious injury, minimize the likelihood of PTS, TTS, or more severe behavioral responses, further minimize the likelihood of take of North Pacific Right Whales in important feeding areas, and overall to result in the least practicable adverse effect on marine mammal species or stocks.

Based on this analysis of the likely effects of the specified activity on marine mammal species or stocks and their habitat, which includes consideration of the materials provided in the Navy's LOA application and GOA FSEIS/OEIS, and dependent upon the implementation of the mitigation and monitoring measures, NMFS finds that the total marine mammal take from the Navy's training activities in the GOA Study Area will have a negligible impact on the affected marine mammal species or stocks through effects on annual rates of recruitment or survival. NMFS is issuing regulations for these activities in order to prescribe the means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, and to set forth requirements pertaining to the monitoring and reporting of that taking.

Subsistence Harvest of Marine Mammals

The Tribes nearest the GOA TMAA include the Sun'aq Tribe of Kodiak, the Native Village of Eyak, and the Yakutat Tlingit Tribe; however, these Tribes do not use the TMAA for subsistence. In January 2013, the Navy sent letters to 12 Alaska Native federally-recognized Tribes, including those listed above, with the assistance of the Alaskan Command's Tribal liaison, requesting government-to-government consultation pursuant to Executive Order 13175. The Navy conducted a government-to-government consultation with the Native Village of Eyak and addressed many of the Village's concerns regarding the potential impacts from training activities. All 12 Tribes were also provided a copy of the GOA DSEIS/OEIS for review and comment. Comments on the GOA DSEIS/OEIS were received from the Native Village of Eyak Tribe. In July 2016, Navy held government-to-government consultation with five (5) Alaska Native Tribes in the Kodiak area regarding tribal comments and concerns of the Proposed Action. The Navy considered the concerns of the five Tribes regarding fishery resources and agreed to include a mitigation that precludes the use of ordnance in the Portlock Bank area. The Navy will continue to keep the Tribes informed of the timeframes of future joint training exercises.

There are no relevant subsistence uses of marine mammals implicated by this action. None of the training activities in the Study Area occur where traditional Arctic subsistence hunting exists. Therefore, NMFS has determined that the total taking would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act

There are eight marine mammal species under NMFS jurisdiction that are listed as endangered or threatened under the ESA with confirmed or possible occurrence in the Study Area: Blue whale, fin whale, humpback whale (Western North Pacific DPS and Mexico DPS), sei whale, sperm whale, gray whale (Western North Pacific stock), North Pacific right whale, and Steller sea lion (Western U.S. stock). The Navy consulted with NMFS pursuant to section 7 of the ESA, and NMFS also consulted internally on the issuance of a rule and LOA under section 101(a)(5)(A) of the MMPA for GOA activities. NMFS issued a Biological Opinion concluding that the issuance of the rule and subsequent LOA are likely to adversely affect, but are not likely to jeopardize, the continued existence of the threatened and endangered species under NMFS' jurisdiction and are not likely to result in the destruction or adverse modification of critical habitat in the GOA TMAA Study Area. The Biological Opinion for this action is available on NMFS' Web site (*http://www.nmfs.noaa.gov/pr/permits/incidental/military.htm*).

National Environmental Policy Act

NMFS participated as a cooperating agency on the GOA FSEIS/OEIS, which was published on July 9, 2016, and is available on the Navy's Web site: *http://www.goaeis.com.* NMFS determined that the GOA FSEIS/OEIS is adequate and appropriate to meet our responsibilities under NEPA for the issuance of regulations and LOA and adopted the Navy's GOA FSEIS/OEIS.

Classification

The Office of Management and Budget has determined that this final rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration at the proposed rule stage that this rule would not have a significant economic impact on a substantial number of small entities. The Navy is the sole entity that would be affected by this rulemaking, and the

Navy is not a small governmental jurisdiction, small organization, or small business, as defined by the RFA. Any requirements imposed by an LOA issued pursuant to these regulations, and any monitoring or reporting requirements imposed by these regulations, would be applicable only to the Navy. NMFS does not expect the issuance of these regulations or the associated LOA to result in any impacts to small entities pursuant to the RFA. Because this action directly affects the Navy and not a small entity, NMFS concludes the action will not result in a significant economic impact on a substantial number of small entities. No comments were received regarding this certification. As a result, a regulatory flexibility analysis is not required and none has been prepared.

The Assistant Administrator for Fisheries has determined that there is good cause under the Administrative Procedure Act (5 U.S.C 553(d)(3)) to waive the 30-day delay in the effective date of the measures contained in the final rule. NMFS is unable to accommodate the 30-day delay of effectiveness due to delays resulting from: Late changes in the action (reductions in activity levels), the need for new impact analyses to address policy changes initiated by NMFS (new Acoustic Guidance), and the need to analyze a recent Ninth Circuit opinion regarding section 101(a)(5)(A) of the MMPA. The Navy is the only entity subject to the regulations, and it has informed NMFS that it requests that this final rule take effect by April 2017 to accommodate a Navy training exercise in the GOA planned for May 1, 2017. A waiver of the 30-day delay of the effective date of the final rule will allow the Navy to finalize operational procedures to ensure compliance with required mitigation, monitoring, and reporting requirements, and have MMPA authorization in place to support at-sea joint exercises in the GOA scheduled for May 2017. Any delay of enacting the final rule would result in either: (1) A suspension of planned naval training, which would disrupt vital training essential to national security; or (2) the Navy's procedural non-compliance with the MMPA (should the Navy conduct training without an LOA), thereby resulting in the potential for unauthorized takes of marine mammals. Moreover, the Navy is ready to implement the rule immediately. For these reasons, the Assistant Administrator finds good cause to waive the 30-day delay in the effective date.

List of Subjects in 50 CFR Part 218

Exports, Fish, Imports, Incidental take, Indians, Labeling, Marine mammals, Navy, Penalties, Reporting and recordkeeping requirements, Seafood, Sonar, Transportation.

Dated: April 21, 2017.

Alan D. Risenhoover,

Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 218 is amended as follows:

PART 218—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

■ 1. The authority citation for part 218 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

■ 2. Subpart P is added to part 218 to read as follows:

Subpart P—Taking and Importing Marine Mammals; U.S. Navy's Gulf of Alaska Temporary Maritime Activities Area (GOA TMAA) Study Area

Sec.

218.150 Specified activity and specified geographical region.
218.151 Effective dates and definitions.
218.152 Permissible methods of taking.
218.153 Prohibitions.
218.154 Mitigation.
218.155 Requirements for monitoring and reporting.
218.156 Applications for letters of authorization (LOA).
218.157 Letters of authorization (LOA).
218.158 Renewal and modifications of letters of authorization (LOA) and adaptive management.

Subpart P—Taking and Importing Marine Mammals; U.S. Navy's Gulf of Alaska Temporary Maritime Activities Area (GOA TMAA) Study Area

§ 218.150 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 occurs 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 GOA TMAA Study Area, which is bounded by a hexagon with the following six corners: 57°30′° N. lat., 141°30′° W. long.; 59°36′° N. lat., 148°10′° W. long.; 58°57′° N. lat., 150°04′° W. long.; 58°20′° N. lat., 151°00′° W. long.; 57°16′° N. lat., 151°00′° W. long.; and 55°30′° N. lat., 142°00′° W. long.

(c) The taking of marine mammals by the Navy is only authorized if it occurs incidental to the following activities:

(1) *Sonar and other active sources used during training*—(i) *Mid-frequency (MF) source classes.* (A) MF1—an average of 271 hours per year.

(B) MF3—an average of 24 hours per year.

(C) MF4—an average of 26 hours per year.

(D) MF5—an average of 126 items per year.

(E) MF6—an average of 11 items per year.

(F) MF11—an average of 39 hours per year.

(ii) *High-frequency (HF) source classes.* (A) HF1—an average of 12 hours per year.

(B) HF6—an average of 40 items per year.

(iii) *Anti-Submarine Warfare (ASW) source classes.* (A) ASW2—an average of 40 hours per year.

(B) ASW3—an average of 273 hours per year.

(C) ASW4—an average 6 items per year.

(iv) *Torpedoes (TORP).* (A) TORP2—an average of 0 items per year.

(B) [Reserved]

(2) *Impulsive source detonations during training*—(i) *Explosive classes.* (A) E5 (>5 to 10 pound (lb) net explosive weight (NEW))—an average of 56 detonations per year.

(B) E9 (>100 to 250 lb NEW)—an average of 64 detonations per year.

(C) E10 (>250 to 500 lb NEW)—an average of 6 detonations per year.

(D) E12 (>650 to 1,000 lb NEW)—an average of 2 detonations per year.

(ii) [Reserved]

§ 218.151 Effective dates and definitions.

(a) Regulations in this subpart are effective April 26, 2017 through April 26, 2022.

(b) 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 (*i.e.,* could be two different species, but not including mother/calf pairs, unless of species of concern listed in next bullet) found dead or live on shore within a three- to four-day period and within 10 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, North Pacific right whale, humpback whale, sperm whale, blue

whale, fin whale, sei whale, Cook Inlet beluga whale, Northern fur seal, and Steller sea lion.

(iii) A group of two or more cetaceans of any species exhibiting indicators of distress.

(2) [Reserved]

§ 218.152 Permissible methods of taking.

(a) Under letter of authorization (LOA) issued pursuant to § 216.106 of this chapter and § 218.157, the holder of the LOA may incidentally, but not intentionally, take marine mammals within the area described in § 218.150, provided the activity is in compliance with all terms, conditions, and requirements of these regulations and the LOA.

(b) The activities identified in § 218.150(c) must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammal species or stocks and their habitat.

(c) The incidental take of marine mammals under the activities identified in § 218.150(c) is limited to the following species, by the identified method of take and the indicated number of times:

(1) *Level B harassment for all training activities*—(i) *Mysticetes.* (A) Blue whale (Balaenoptera musculus), Eastern North Pacific—235 (an average of 47 per year).

(B) Fin whale (Balaenoptera physalus), Northeast Pacific—6,455 (an average of 1,291 per year).

(C) Humpback whale (Megaptera novaeangliae), Central North Pacific—305 (an average of 61 per year).

(D) Humpback whale (Megaptera novaeangliae), Western North Pacific—5 (an average of 1 per year).

(E) Humpback whale (Megaptera novaeangliae), CA/OR/WA—35 (an average of 7 per year).

(F) Minke whale (Balaenoptera acutorostrata), Alaska—215 (an average of 43 per year).

(G) North Pacific right whale (Eubalaena japonica), Eastern North Pacific—15 (an average of 3 per year).

(H) Sei whale (Balaenoptera borealis), Eastern North Pacific—30 (an average of 6 per year).

(ii) *Odontocetes.* (A) Baird's beaked whale (Berardius bairdii), Alaska—1,000 (an average of 200 per year).

(B) Cuvier's beaked whale (Ziphius cavirostris), Alaska—6,355 (an average of 1,271 per year).

(C) Dall's porpoise (Phocoenoidea dalli), Alaska—41,350 (an average of 8,270 per year).

(D) Harbor porpoise (Phocoena phocoena), GOA—13,710 (an average of 2,742 per year).

(E) Harbor porpoise (Phocoena phocoena), Southeast Alaska—4,815 (an average of 963 per year).

(F) Killer whale (Orcinus orca), Alaska Resident—1,405 (an average of 281 per year).

(G) Killer whale (Orcinus orca), Eastern North Pacific Offshore—130 (an average of 26 per year).

(H) Killer whale (Orcinus orca), GOA, Aleutian Island, and Bearing Sea Transient—360 (an average of 72 per year).

(I) Pacific white-sided dolphin (Lagenorhynchus obliquidens), North Pacific—4,905 (an average of 981 per year).

(J) Stejneger's beaked whale (Mesoplodon stejnegeri), Alaska—2,880 (an average of 576 per year).

(K) Sperm whale (Physeter macrocephalus), North Pacific—490 (an average of 98 per year).

(iii) *Pinnipeds.* (A) California sea lion (Zalophus californianus), U.S.—10 (an average of 2 per year).

(B) Steller sea lion (Eumetopias jubatus), Eastern U.S.—1,675 (an average of 335 per year).

(C) Steller sea lion (Eumetopias jubatus), Western U.S.—1,430 (an average of 286 per year).

(D) Harbor seal (Phoca vitulina), South Kodiak—5 (an average of 1 per year).

(E) Harbor seal (Phoca vitulina), Prince William Sound—5 (an average of 1 per year).

(F) Northern elephant seal (Mirounga angustirostris), California Breeding—610 (an average of 122 per year).

(G) Northern fur seal (Callorhinus ursinus), Eastern Pacific—3,565 (an average of 713 per year).

(2) *Level A harassment for all training activities*—(i) *Odontocetes.* (A) Dall's porpoise (Phocoenoidea dalli), Alaska—12 (an average of 4 per year).

(B) [Reserved]

(ii) [Reserved]

§ 218.153 Prohibitions.

Notwithstanding takings contemplated in § 218.152 and authorized by an LOA issued under § 216.106 of this chapter and § 218.157, no person in connection with the activities described in § 218.150 may:

(a) Take any marine mammal not specified in § 218.152(c);

(b) Take any marine mammal specified in § 218.152(c) other than by incidental take as specified in § 218.152(c);

(c) Take a marine mammal specified in § 218.152(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 an LOA issued under § 216.106 of this chapter and § 218.157.

§ 218.154 Mitigation.

(a) After review of best available science, the following mitigation was determined to result in the least practicable adverse effect on marine mammal species or stocks. When conducting training activities, as identified in § 218.150, the mitigation measures contained in the LOA issued under § 216.106 of this chapter and § 218.157 must be implemented. These mitigation measures include, but are not limited to:

(1) *Lookouts.* The Navy shall have two types of lookouts for the purposes of conducting visual observations: Those positioned on ships; and those positioned ashore, in aircraft, or on boats. The following are protective measures concerning the use of lookouts.

(i) Lookouts positioned on surface ships shall be dedicated solely to diligent observation of the air and surface of the water. Their observation objectives shall include, but are not limited to, detecting the presence of biological resources and recreational or fishing boats, observing mitigation zones, and monitoring for vessel and personnel safety concerns.

(ii) Due to manning and space restrictions on aircraft, small boats, and some Navy ships, lookouts for these platforms may be supplemented by the aircraft crew or pilot, boat crew, range site personnel, or shore-side personnel. Lookouts positioned in minimally manned platforms may be responsible for tasks in addition to observing the air or surface of the water (*e.g.,* navigation of a helicopter or small boat). However, all lookouts shall, considering personnel safety, practicality of implementation, and impact on the effectiveness of the activity, comply with the observation objectives described in paragraph (a)(1)(i) of this section for lookouts positioned on ships.

(iii) All personnel standing watch on the bridge, Commanding Officers, Executive Officers, maritime patrol aircraft aircrews, anti-submarine warfare helicopter crews, civilian equivalents, and lookouts shall successfully complete the United States Navy Marine Species Awareness Training prior to standing watch or serving as a lookout.

(iv) *Lookout measures for non-impulsive sound.* (A) With the exception of vessels less than 65 ft (20 m) in length, ships using hull-mounted mid-frequency active sonar sources

associated with anti-submarine warfare activities at sea shall have two Lookouts at the forward position of the vessel.

(B) While using hull-mounted mid-frequency active sonar sources associated with anti-submarine warfare activities at sea, vessels less than 65 ft (20 m) in length shall have one lookout at the forward position of the vessel due to space and manning restrictions.

(C) During non-hull mounted mid-frequency active sonar training activities, 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. Helicopters shall observe/survey the vicinity of an anti-submarine warfare training event for 10 minutes before the first deployment of active (dipping) sonar in the water.

(D) Ships or aircraft conducting non-hull-mounted mid-frequency active sonar, such as helicopter dipping sonar systems, shall maintain one lookout.

(E) Ships conducting high-frequency active sonar shall maintain one lookout.

(v) *Lookout measures for explosives and impulsive sound.* (A) Aircraft conducting explosive signal underwater sound buoy activities using >0.5–2.5 lb. NEW shall have one lookout.

(B) Surface vessels or aircraft conducting small-, medium-, or large-caliber gunnery exercises against a surface target shall have one Lookout. From the intended firing position, trained Lookouts shall survey the mitigation zone for marine mammals prior to commencement and during the exercise as long as practicable. Towing vessels, if applicable, shall also maintain one 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.

(C) Aircraft conducting explosive bombing exercises shall have one lookout and any surface vessels involved shall have trained Lookouts. If surface vessels are involved, Lookouts shall survey for floating kelp and marine mammals. 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 (460 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) When aircraft are conducting missile exercises against a surface target, the Navy shall have one Lookout positioned in an aircraft. Aircraft shall visually survey the target area for marine mammals. Visual inspection of the target area shall be made by flying at 1,500 ft (457 m) or lower, if safe to do so, and at the slowest safe speed. Firing or range clearance aircraft must be able to actually see ordnance impact areas.

(E) Ships conducting explosive and non-explosive gunnery exercises shall have one Lookout on the ship. This may be the same lookout described in paragraph (a)(1)(v)(B) of this section for surface vessels conducting small-, medium-, or large-caliber gunnery exercises when that activity is conducted from a ship against a surface target.

(vi) *Lookout measures for physical strike and disturbance.* (A) While underway, surface ships shall have at least one Lookout with binoculars, and 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 Officer of the Deck the presence of marine mammals.

(B) [Reserved]

(vii) *Lookout measures for non-explosive practice munitions.* (A) Gunnery exercises using non-explosive practice munitions (*e.g.,* small-, medium-, and large-caliber) using a surface target shall have one Lookout.

(B) During non-explosive bombing exercises one Lookout shall be positioned in an aircraft and trained lookouts shall be positioned in any surface vessels involved.

(C) When aircraft are conducting non-explosive missile exercises (including exercises using rockets) against a surface target, the Navy shall have one Lookout positioned in an aircraft.

(2) *Mitigation zones.* The following are protective measures concerning the implementation of mitigation zones.

(i) Mitigation zones shall be measured as the radius from a source and represent a distance to be monitored.

(ii) Visual detections of marine mammals or sea turtles within a mitigation zone shall be communicated immediately to a watch station for information dissemination and appropriate action.

(iii) *Mitigation zones for non-impulsive sound.* (A) The Navy shall ensure that hull-mounted mid-frequency active sonar transmission levels are limited to at least 6 dB below normal operating levels if any detected marine mammals or sea turtles are within 1,000 yd (914 m) of the sonar dome (the bow).

(B) The Navy shall ensure that hull-mounted mid-frequency active sonar transmissions are limited to at least 10 dB below the equipment's normal operating level if any detected marine mammals or sea turtles are within 500 yd (457 m) of the sonar dome.

(C) The Navy shall ensure that hull-mounted mid-frequency active sonar transmissions are ceased if any detected cetaceans or sea turtles are within 200 yd (183 m) and pinnipeds are within 100 yd (90 m) of the sonar dome. Transmissions shall not resume until the marine mammal has been observed exiting the mitigation zone, is thought to have exited the mitigation zone based on its course and speed, has not been detected for 30 minutes, the vessel has transited more than 2,000 yd (1830 m) beyond the location of the last detection, or the ship concludes that dolphins are deliberately closing in on the ship to ride the ship's bow wave (and there are no other marine mammal sightings within the mitigation zone). Active transmission may resume when dolphins are bow riding because they are out of the main transmission axis of the active sonar while in the shallow-wave area of the ship bow.

(D) The Navy shall ensure that high-frequency and non-hull-mounted mid-frequency active sonar transmission levels are ceased if any detected cetaceans are within 200 yd (183 m) and pinnipeds are within 100 yd (90 m) of the source. Transmissions shall not resume until the marine mammal has been observed exiting the mitigation zone, is thought to have exited the mitigation zone based on its course and speed, the mitigation zone has been clear from any additional sightings for a period of 10 minutes for an aircraft-deployed source, the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a vessel-deployed source, the vessel or aircraft has repositioned itself more than 400 yd (370 m) away from the location of the last sighting, or the vessel concludes that dolphins are deliberately closing in to ride the vessel's bow wave (and there are no other marine mammal sightings within the mitigation zone).

(iv) *Mitigation zones for explosive and impulsive sound.* (A) A mitigation zone with a radius of 350 yd (320 m) shall be established for explosive signal underwater sonobuoys using >0.5 to 2.5 lb NEW. Explosive signal underwater sonobuoys shall not be deployed if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone (around the intended

deployment location). Explosive signal underwater sonobuoy deployment shall cease if a marine mammal is sighted within the mitigation zone. Detonations shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, or the mitigation zone has been clear from any additional sightings for a period of 10 minutes. Passive acoustic monitoring shall also be conducted with Navy assets, such as sonobuoys, already participating in the activity. These assets would only detect vocalizing marine mammals within the frequency bands monitored by Navy personnel. Passive acoustic detections would not provide range or bearing to detected animals, and therefore cannot provide locations of these animals. Passive acoustic detections would be reported to Lookouts posted in aircraft in order to increase vigilance of their visual surveillance.

(B) A mitigation zone with a radius of 200 yd (183 m) shall be established for small- and medium-caliber gunnery exercises with a surface target. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing shall cease if a marine mammal is sighted within the mitigation zone. Firing shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, the mitigation zone has been clear from any additional sightings for a period of 10 minutes for a firing aircraft, the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a firing ship, or the intended target location has been repositioned more than 400 yd (370 m) away from the location of the last sighting.

(C) A mitigation zone with a radius of 600 yd (549 m) shall be established for large-caliber gunnery exercises with a surface target. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing shall cease if a marine mammal is sighted within the mitigation zone. Firing shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, or the mitigation zone has been clear from any additional sightings for a period of 30 minutes.

(D) A mitigation zone with a radius of 2,500 yd (2.3 km) around the intended impact location for explosive bombs and 1000 yd (920 m) for non-explosive bombs shall be established for bombing exercises. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Bombing shall cease if a marine mammal is sighted within the mitigation zone. Bombing shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, or the mitigation zone has been clear from any additional sightings for a period of 10 minutes.

(E) A mitigation zone of 70 yd (64 m) shall be established for all explosive large-caliber gunnery exercises conducted from a ship. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing shall cease if a marine mammal is sighted within the mitigation zone. Firing shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, the mitigation zone has been clear from any additional sightings for a period of 30 minutes, or the vessel has repositioned itself more than 140 yd (128 m) away from the location of the last sighting.

(v) *Mitigation zones for vessels and in-water devices.* (A) Vessels shall avoid approaching marine mammals head on and shall maneuver to keep at least 500 yd (457 m) away from observed whales and 200 yd (183 m) away from all other marine mammals (except bow riding dolphins), providing it is safe to do so. These requirements shall not apply if a vessel's safety is threatened and to the extent that vessels are restricted in their ability to maneuver. Restricted maneuverability includes, but is not limited to, situations when vessels are engaged in dredging, submerged activities, launching and recovering aircraft or landing craft, minesweeping activities, replenishment while underway and towing activities that severely restrict a vessel's ability to deviate course.

(B) A mitigation zone of 250 yd (229 m) shall be established for all towed in-water devices, providing it is safe to do so.

(vi) *Mitigation zones for non-explosive practice munitions.* (A) A mitigation zone of 200 yd (183 m) shall be established for small-, medium-, and large-caliber gunnery exercises using a surface target. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Firing shall cease if a marine mammal is sighted within the mitigation zone. Firing shall recommence if any one of the following conditions is met: The animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, the mitigation zone has been clear from any additional sightings for a period of 10 minutes for a firing aircraft, the mitigation zone has been clear from any additional sightings for a period of 30 minutes for a firing ship, or the intended target location has been repositioned more than 400 yd (370 m) away from the location of the last sighting.

(B) A mitigation zone of 1,000 yd (920 m) shall be established for bombing exercises. Bombing shall cease if a marine mammal is sighted within the mitigation zone. The exercise shall not commence if concentrations of floating vegetation (kelp paddies) are observed in the mitigation zone. Bombing shall recommence if any one of the following conditions is met: the animal is observed exiting the mitigation zone, the animal is thought to have exited the mitigation zone based on its course and speed, or the mitigation zone has been clear from any additional sightings for a period of 10 minutes.

(3) *Cautionary Areas.* The following are additional measures the Navy shall comply with when conducting training activities in the GOA TMAA Study Area:

(i) The Navy shall avoid training activities using hull-mounted surface ship active sonar and explosive detonations within the North Pacific Right Whale Cautionary Area, defined as the portion of the NMFS-identified biologically important feeding area for North Pacific right whale overlapping the GOA TMAA, except when required by national security needs.

(ii) In the event of national security needs, the Navy shall seek approval in advance from the Commander, U.S. Third Fleet, prior to conducting training activities using hull-mounted active sonar or explosive detonations within the Cautionary Area.

(4) *Stranding response plan.* (i) The Navy shall abide by the letter of the ''Stranding Response Plan for the Gulf of Alaska Temporary Maritime Activities Area,'' to include the following measures:

(A) *Shutdown procedures.* When an Uncommon Stranding Event (USE—defined in § 218.151) occurs during an MTE in the Study Area, the Navy shall

implement the procedures described in paragraphs (a)(4)(i)(A)(*1*) through (*4*) of this section:

(*1*) The Navy shall implement a shutdown when advised by a NMFS Office of Protected Resources Headquarters Senior Official designated in the GOA TMAA Study Area 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 maintain a dialogue, 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 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 behavior (if alive), and photo or video (if available). Based on the information provided, NFMS shall determine if, and advise the Navy whether a modified shutdown is appropriate on a case-by-case basis.

(*4*) In the event, following a USE, that qualified individuals are attempting to herd animals back out to the open ocean and animals are not willing to leave, or 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 mid-frequency active sonar training activities or explosive detonations, though farther than 14 nautical miles from the distressed animal(s), is likely contributing to the animals' refusal to return to the open water. If so, NMFS and the Navy shall further coordinate to determine what measures are necessary to improve the probability that the animals will return to open water 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 GOA TMAA Study Area Communication Protocol) regarding the location, number and types of acoustic/explosive sources, direction and speed of units using mid-frequency active sonar, and marine mammal sightings information associated with training activities occurring within 80 nautical miles (148 km) and 72 hours prior to the USE event. Information not initially available regarding the 80-nautical miles (148-km), 72-hour 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.

(ii) [Reserved]

(b) [Reserved]

§ 218.155 Requirements for monitoring and reporting.

(a) The Holder of the Authorization must notify NMFS immediately (or as soon as operational security considerations allow) if the specified activity identified in § 218.150 is thought to have resulted in the mortality or injury of any marine mammals, or in any take of marine mammals not identified in § 218.152(c).

(b) The Holder of the LOA must conduct all monitoring and required reporting under the LOA, including abiding by the GOA TMAA monitoring plan.

(c) *General notification of injured or dead marine mammals.* Navy personnel shall ensure that NMFS (regional stranding coordinator) is notified immediately (or as soon as operational security considerations allow) if an injured or dead marine mammal is found by Navy personnel during or shortly after, and in the vicinity of, a Navy training activity utilizing mid- or high-frequency active sonar, or underwater explosive detonations. 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 is dead), location, time of first discovery, observed behaviors (if alive), and photo or video (if available). In the event that an injured, stranded, or dead marine mammal is found by the Navy that is not in the vicinity of, or during or shortly after, MFAS, HFAS, or underwater explosive detonations, the Navy shall report the same information as listed in this paragraph (c) as soon as operationally feasible and clearance procedures allow.

(d) *General notification of ship strike.* In the event of a ship strike by any Navy vessel, at any time or place, the Navy shall do the following:

(1) Immediately report to NMFS the species identification (if known), location (lat/long) of the animal (or the strike if the animal has disappeared), and whether the animal is alive or dead (or unknown), and the time of the strike.

(2) Report to NMFS as soon as operationally feasible the size and length of animal, an estimate of the injury status (ex., dead, injured but alive, injured and moving, unknown, etc.), vessel class/type and operational status.

(3) Report to NMFS the vessel length, speed, and heading as soon as feasible.

(4) Provide NMFS a photo or video, if equipment is available.

(5) Within 2 weeks of the strike, provide NMFS with a detailed description of the specific actions of the vessel in the 30-minute timeframe immediately preceding the strike, during the event, and immediately after the strike (*e.g.,* the speed and changes in speed, the direction and changes in direction, other maneuvers, sonar use, etc., if not classified); a narrative description of marine mammal sightings during the event and immediately after, and any information as to sightings prior to the strike, if available; and use established Navy shipboard procedures to make a camera available to attempt to capture photographs following a ship strike.

(e) *Communication plan.* The Navy and NMFS shall develop a communication plan that will include all of the communication protocols (phone trees, etc.) and associated contact information required for NMFS and the Navy to carry out the necessary expeditious communication required in the event of a stranding or ship strike, including information described in the notification measures in paragraphs (c) and (d) of this section.

(f) *Annual GOA TMAA monitoring report.* The Navy shall submit an annual report of the GOA TMAA monitoring describing the implementation and results from the previous calendar year. Data collection methods shall be standardized across range complexes and study areas to allow for comparison in different geographic locations. The report shall be submitted either 90 days after the calendar year, or 90 days after the conclusion of the monitoring year to be determined by the adaptive management process. The GOA TMAA Monitoring Report may be provided to NMFS within a larger report that includes the required Monitoring Plan reports from multiple range complexes and study areas (the multi-Range Complex Annual Monitoring Report). Such a report would describe progress of knowledge made with respect to monitoring plan study questions across all Navy ranges associated with the Integrated Comprehensive Monitoring Program. Similar study questions shall

be treated together so that progress on each topic shall be summarized across all Navy ranges. The report need not include analyses and content that does not provide direct assessment of cumulative progress on the monitoring plan study questions.

(g) *Annual GOA TMAA exercise reports.* Each year, the Navy shall submit a preliminary report detailing the status of authorized sound sources within 21 days after the anniversary of the date of issuance of the LOA. Each year, the Navy shall submit a detailed report within 3 months after the anniversary of the date of issuance of the LOA. The annual report shall contain information on Major Training Exercises (MTEs) and a summary of all sound sources used, as described in paragraph (g)(3) of this section. The analysis in the detailed report shall be based on the accumulation of data from the current year's report and data collected from previous the report. The detailed reports shall contain information identified in paragraphs (g)(1) through (4) of this section.

(1) *MFAS/HFAS Major Training Exercises.* This section shall contain the following information for Major Training Exercises conducted in the GOA TMAA:

(i) Exercise Information (for each MTE):

(A) Exercise designator.

(B) Date that exercise began and ended.

(C) Location.

(D) Number and types of active sources used in the exercise.

(E) Number and types of passive acoustic sources used in exercise.

(F) Number and types of vessels, aircraft, etc., participating in exercise.

(G) Total hours of observation by lookouts.

(H) Total hours of all active sonar source operation.

(I) Total hours of each active sonar source bin.

(J) Wave height (high, low, and average during exercise).

(ii) Individual marine mammal sighting information for each sighting in each exercise when mitigation occurred:

(A) Date/Time/Location of sighting.

(B) Species (if not possible, indication of whale/dolphin/pinniped).

(C) Number of individuals.

(D) Initial Detection Sensor.

(E) Indication of specific type of platform observation made from (including, for example, what type of surface vessel or testing platform).

(F) Length of time observers maintained visual contact with marine mammal.

(G) Sea state.

(H) Visibility.

(I) Sound source in use at the time of sighting.

(J) Indication of whether animal is <200 yd, 200 to 500 yd, 500 to 1,000 yd, 1,000 to 2,000 yd, or >2,000 yd from sonar source.

(K) *Mitigation implementation.* Whether operation of sonar sensor was delayed, or sonar was powered or shut down, and how long the delay was.

(L) If source in use is hull-mounted, true bearing of animal from ship, true direction of ship's travel, and estimation of animal's motion relative to ship (opening, closing, parallel).

(M) *Observed behavior.* Lookouts shall report, in plain language and without trying to categorize in any way, the observed behavior of the animals (such as animal closing to bow ride, paralleling course/speed, floating on surface and not swimming, etc.) and if any calves present.

(iii) An evaluation (based on data gathered during all of the MTEs) of the effectiveness of mitigation measures designed to minimize the received level to which marine mammals may be exposed. This evaluation shall identify the specific observations that support any conclusions the Navy reaches about the effectiveness of the mitigation.

(2) *Summary of sources used.* (i) This section shall include the following information summarized from the authorized sound sources used in all training events:

(A) Total annual hours or quantity (per the LOA) of each bin of sonar or other non-impulsive source; and

(B) Total annual number of each type of explosive exercises and total annual expended/detonated rounds (missiles, bombs, sonobuoys, etc.) for each explosive bin.

(ii) [Reserved]

(3) *Geographic information presentation.* The reports shall present an annual (and seasonal, where practical) depiction of training exercises and testing bin usage geographically across the Study Area.

(h) *MTE prior notification.* The Navy shall submit to NMFS (contact as specified in the LOA and Stranding Plan) an electronic notice of pending MTEs 72 hours prior to the start of the MTE indicating:

(1) Location of the exercise.

(2) Beginning and end dates of the exercise.

(3) Type of exercise.

(i) *Five-year close-out exercise report.* This report shall be included as part of the 2021 annual exercise report. This report shall provide the annual totals for each sound source bin with a comparison to the annual allowance and the 5-year total for each sound source bin with a comparison to the 5-year allowance. Additionally, if there were any changes to the sound source allowance, this report shall include a discussion of why the change was made and include the analysis to support how the change did or did not result in a change in the SEIS and final rule determinations. The report shall be submitted 3 months after the expiration of this subpart. NMFS shall submit comments on the draft close-out report, if any, 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 provide comments.

§ 218.156 Applications for letters of authorization (LOA).

To incidentally take marine mammals pursuant to the regulations in this subpart, the U.S. citizen (as defined by § 216.106 of this chapter) conducting the activity identified in § 218.150(c) (the U.S. Navy) must apply for and obtain either an initial LOA in accordance with § 218.157 or a renewal under § 218.158.

§ 218.157 Letters of authorization (LOA).

(a) An LOA, unless suspended or revoked, shall be valid for a period of time not to exceed the period of validity of this subpart.

(b) Each LOA 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 LOA shall be based on a determination that the total number of marine mammals taken by the activity as a whole shall have no more than a negligible impact on the affected species or stock of marine mammal(s).

§ 218.158 Renewals and modifications of letters of authorization (LOA) and adaptive management.

(a) A letter of authorization issued under § 216.106 of this chapter and § 218.157 for the activity identified in § 218.150(c) shall be renewed or modified upon request of the applicant, provided that:

(1) The proposed specified activity and mitigation, monitoring, and reporting measures, as well as the anticipated impacts, are the same as those described and analyzed for these regulations (excluding changes made

pursuant to the adaptive management provision of this chapter); and

(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA under these regulations were implemented.

(b) For LOA modification or renewal requests by the applicant that include changes to the activity or the mitigation, monitoring, or reporting (excluding changes made pursuant to the adaptive management provision of this chapter) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed LOA in the **Federal Register**, including the associated analysis illustrating the change, and solicit public comment before issuing the LOA.

(c) An LOA issued under § 216.106 of this chapter and § 218.157 for the activity identified in § 218.154 may be modified by NMFS under the following circumstances:

(1) *Adaptive management.* NMFS may modify and augment the existing mitigation, monitoring, or reporting measures (after consulting with the Navy regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring.

(i) Possible sources of data that could contribute to the decision to modify the mitigation, monitoring, and reporting measures in an LOA:

(A) Results from Navy's monitoring from the previous year(s);

(B) Results from other marine mammal and/or sound research or studies; or

(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOA.

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS would publish a notice of proposed LOA in the **Federal Register** and solicit public comment.

(2) *Emergencies.* If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 218.152(c), an LOA may be modified without prior notification and an opportunity for public comment. Notification would be published in the **Federal Register** within 30 days of the action.

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Part IV

The President

Proclamation 9593—National Volunteer Week, 2017

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Presidential Documents

Title 3—

The President

Proclamation 9593 of April 21, 2017

National Volunteer Week, 2017

By the President of the United States of America

A Proclamation

During National Volunteer Week, we celebrate the spirit of compassion and generosity that drives us to care for others, and we recognize America's volunteers. Our volunteers are often unsung and unseen, but they are heroes.

One of our Nation's greatest strengths has always been our citizens' unique commitment to improving the lives of others. The principles of charitable compassion and philanthropic collaboration were at the heart of our Founding Fathers' efforts to build a culture that serves the greater good. From our earliest days, Americans have answered the call to help those in need—at home and around the world. This service, fundamental to our Nation's character, is renewed each day by citizens who generously give their time and talents to help others.

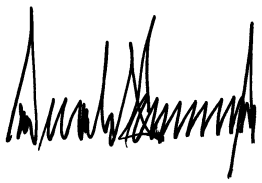
Our Nation's commitment to civic engagement continues to thrive. American volunteers keep students on track for graduation, care for seniors and veterans, and rebuild communities after terrible storms. Beyond our borders, our volunteers often place their lives at risk as they help those affected by war, poverty, and disease.

According to the Bureau of Labor Statistics, more than 60 million Americans volunteered in 2015, giving an estimated $185 billion in service to their communities. The latest data shows that our Nation's seniors lead the way in time spent volunteering, and we are immensely thankful for their commitment. Our busy adults aged 35 to 54 volunteer at the highest rates, and our communities depend on their continued involvement. Our Nation continues to build a culture of service—the volunteer rate among our teenagers has steadily climbed over the past several years.

This week we pay tribute to the extraordinary faith-based, nonprofit, national service, service club, military service, and community organizations that provide volunteers with opportunities to serve. These organizations engage and connect Americans from every walk of life. Through the generosity of our citizens, we are reminded that each one of us has a role to play in improving our communities. During the recent International Week of Service, service organizations across the globe came together to assist others and make an impact. This effort is a shining example of how our Nation's generous volunteers continue to lead the world in helping those most in need.

NOW, THEREFORE, I, DONALD J. TRUMP, President of the United States of America, by virtue of the authority vested in me by the Constitution and the laws of the United States, do hereby proclaim April 23 through April 29, 2017, as National Volunteer Week. I call upon all Americans to observe this week by volunteering in service projects across our country and pledging to make service a part of their daily lives.

IN WITNESS WHEREOF, I have hereunto set my hand this twenty-first day of April, in the year of our Lord two thousand seventeen, and of the Independence of the United States of America the two hundred and forty-first.



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