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MAINTAINING COAST GUARD READINESS

(113–74)

HEARING

BEFORE THE

SUBCOMMITTEE ON
COAST GUARD AND MARITIME TRANSPORTATION

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

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Committee on Transportation and Infrastructure
U.S. House of Representatives

Bill Shuster Chairman	Washington, DC 20515	Nick J. Rahall, II Ranking Member
Christopher P. Bertram, Staff Director		James H. Zoia, Democrat Staff Director

June 16, 2014

SUMMARY OF SUBJECT MATTER (Amended)

TO:	Members, Subcommittee on Coast Guard and Maritime Transportation
FROM:	Staff, Subcommittee on Coast Guard and Maritime Transportation
RE:	Hearing on "Maintaining Coast Guard Readiness"

PURPOSE

The Subcommittee on Coast Guard and Maritime Transportation will meet on Wednesday, June 18, 2014, at 9:30 a.m., in 2253 Rayburn House Office Building to receive testimony regarding the status of the Coast Guard's current acquisition program and examine the program's sustainability. The Subcommittee will hear from the United States Coast Guard, the Government Accountability Office (GAO), the Congressional Research Service, and the Navy League of the United States.

BACKGROUND

Coast Guard Recapitalization

The Coast Guard began a process of recapitalizing its aging vessels and aircraft in the late 1990's. The program's focus was to replace those assets that carry out missions farther than 50 miles from shore and to modernize information technology systems that the Service relies upon to communicate and to coordinate its operations. The program was known as the Integrated Deepwater Systems (Deepwater). To manage the acquisition program, the Coast Guard relied on a lead system integrator composed of partnership between Lockheed Martin and Northrop Grumman. The partnership was named the Integrated Coast Guard System (ICGS).

Deepwater encountered significant quality and cost issues. It was the subject of several hearings and an investigation by the Committee. It is also the subject of continuing review by the GAO. Although the ICGS accomplished some goals, such as delivering a reengined HH-65 helicopter, the Coast Guard terminated the contract with the ICGS in 2007 and is now performing the acquisition functions in-house. In 2010, Congress passed the Coast Guard Authorization Act (P.L. 111-281) which prohibited the

further use of lead system integrators. The assets scheduled for recapitalization remain essentially the same as those specified under Deepwater.

Fiscal Year 2015 Budget Request for Coast Guard Acquisitions

The President requests $1.08 billion for the Acquisitions, Construction, and Improvements (AC&I) account in fiscal year (FY) 2015, $291.4 million (or 21.2 percent) less than the FY 2014 enacted level. The AC&I account funds the acquisition, construction, and physical improvements of Coast Guard owned and operated vessels, aircraft, facilities, aids-to-navigation, information management systems, and related equipment.

	FY 2014 Enacted Level	FY 2015 President's Budget Request	H.R. 4005, FY 2015 Authorized Level (passed House)	H.R.____, FY 2015 DHS Appropriations (reported to House)
Acquisition, Construction, & Improvements	$1,375,635,000	$1,084,193,000	$1,546,448,000	$1,287,040,000

The budget request includes approximately $928.3 million for the acquisition of aircraft, vessels, and command, control, communications, computer, intelligence, surveillance, and reconnaissance (C4ISR) systems. This represents a reduction of $310.94 million (or 25 percent) from the FY 2014 enacted level. The budget request includes:

- $638 million to complete construction of the eighth National Security Cutter (NSC) and conduct the first dry docking of NSC #1 (BERTHOLF) to address design flaws identified after construction was underway;
- $110 million to acquire two Fast Response Cutters (FRC). The FRC is replacing the Coast Guard's nearly 30 year-old 110-foot Patrol Boats. Acquiring two is expected to delay the production of FRCs and increase costs;
- $20 million to continue the development of the Offshore Patrol Cutter (OPC). The OPC is supposed to replace the Service's aging 210-foot and 270-foot Medium Endurance Cutters (MEC). It will be the Service's most expensive acquisition in its history;
- $15 million to establish an Asset Project Office and begin training on the new HC-27J aircraft slated for transfer from the Air Force to the Coast Guard. The request does not fund missionization costs for the HC-27Js. The Coast Guard has yet to provide the Subcommittee an estimate of these costs;
- $30 million for the modernization and sustainment of the HH-65 Dolphin helicopter fleet;
- $36.3 million for C4ISR acquisition, program management, and systems engineering and integration; and
- $6 million for survey and design of a new polar icebreaker.

The budget requests $155.8 million in other capital costs, $19.5 million (or 14 percent) more than the FY 2014 enacted level. This includes $115 million in personnel costs to execute AC&I programs and $40.6 million to construct shore facilities and aids-to-navigation. The Coast Guard currently has a backlog of prioritized shore facility improvement projects with an estimated combined cost of over $138 million.

Finally, no funding is included in the budget request to rehabilitate housing for Coast Guard servicemembers and their dependents. The account received $18 million in FY 2014. Much of the Service-owned housing is decades old and in poor condition. The Coast Guard recently completed a survey of the condition of its servicemember housing to help the Service better direct investments.

Issues

Capital Investment Plan

Section 663 of title 14, United States Code, requires the Commandant of the Coast Guard to submit a Capital Investment Plan (CIP) to the Committee each year in conjunction with the budget request. The CIP identifies projected funding levels over the next five fiscal years for each major acquisition, as well as an estimated timeline and total cost to complete each such acquisition. The purpose of the CIP is to ensure Congress can conduct proper oversight of the Service's budget, acquisition plans, mission needs, and readiness to conduct operations in future years. On Friday, June 13, 2014, the Committee received the attached CIP for fiscal years 2015 through 2019.

CIPs submitted in past years have been criticized by GAO for failing to accurately reflect cost and schedule impacts from funding shortfalls. In its recent report entitled *Better Information on Performance and Funding Needed to Address Shortfalls* (GAO-14-450), GAO recommends the Coast Guard be required to regularly update the estimated timeline and total cost to complete each acquisition based upon actual funding levels. It also recommends the Service develop a long-term fleet modernization plan that identifies all acquisitions needed to meet mission needs and the costs associated with such acquisitions over 20 years.

Cost Increases and Schedule Delays

In 1996, the Coast Guard developed a Mission Need Statement (MNS) to identify how Deepwater would fill capability gaps in its missions and establish a baseline for the numbers, types, and capabilities of new and recapitalized assets that would be needed to meet the Service's mission requirements. In 2005, the Coast Guard revised the 1996 MNS to accommodate additional capabilities needed to meet post-September 11 mission requirements. The 2005 MNS guided the creation of a revised acquisition program that was approved in 2007. The revised program identified a new baseline cost of $24.2 billion and a timeline of 20 to 25 years to complete the construction and delivery of recapitalized assets.

In its recent report, GAO estimated it could take an additional 10 years to complete the current acquisition program and the cost could increase by at least $6 billion. GAO found that the Coast Guard and the Department of Homeland Security (DHS) have taken limited steps to address affordability of the acquisition portfolio. DHS conducted two studies that reassessed the large cutters being acquired under the current recapitalization program to determine if trade-offs could be made in planned quantity or capability. However, in both cases DHS concluded that the studies validated the 2005 acquisition program and no trade-off decisions were made (GAO-14-450).

The Coast Guard has also failed to make timely changes in the programs of record for several acquisitions to reflect decisions made regarding the acquisition. This has led to the reporting of total acquisition cost estimates that may not be accurate. For instance, the Coast Guard's current program of record for the Maritime Patrol Aircraft (MPA) calls for the acquisition of 36 HC-144 aircraft at a total cost of $3.1 billion. However, the Coast Guard has not requested funds in the last two fiscal years to acquire more than the 18 HC-144s acquired to date and has informed staff it has no plans to request such funds in the future. The Air Force will transfer 14 C-27J aircraft to the Coast Guard this year. The transfer, coupled with ending the procurement of the HC-144, will avoid over $500 million in acquisition costs. However, the program of record for the MPA and the overall cost of the Service's acquisition program still reflect the $3.1 billion cost for 36 HC-144s.

In April 2014, the Coast Guard announced it would begin the process of revising the 2005 MNS to determine its future mission needs and, if necessary, update the programs of record for each asset being acquired to reflect the revised mission needs. It is unclear whether this revised MNS will result in an acquisition program that better meets projections of future years funding.

Unplanned Capital Needs

Delays in the acquisition program have exacerbated existing capability gaps and created new ones. As a result, additional acquisition needs have been identified that the Service has yet to adequately plan or budget for. For instance:

- Polar Icebreaker – The Coast Guard has two Class III-heavy icebreakers capable of operating in Polar Regions, although only one is currently operational. The Service is working with other federal agencies to determine operational requirements for a new polar icebreaker. The Service estimates a new class III-heavy icebreaker will cost more than $1 billion. The Coast Guard has noted that accommodating that cost into projected acquisition funding levels would significantly limit funds needed to complete the current acquisition program and severely delay the delivery of new or recapitalized assets.

- Medium Endurance Cutters - Under the Coast Guard's current recapitalization program, the 210- and 270-foot MECs are scheduled to remain in service into the mid-2030's before the fleet will be fully replaced by the new OPC. However, the recently completed Mission Effectiveness Project for the MECs will not extend

the service life of the MECs until that time. The Coast Guard has informed staff it is convening a Ship Structure Machinery Engineering Board to begin the process of evaluating the current condition of the MEC fleet and examine ways to extend the fleet's service life to compensate for the delayed arrival of the OPC fleet.

- HH-60 and HH-65 Helicopter Fleet - Under the Coast Guard's current recapitalization program, the Service's fleet of medium range HH-60 and short range HH-65 helicopters have undergone a series of upgrades to extend their service lives. Nevertheless, both aircraft are expected to reach the end of their service lives in 10 to 15 years. The Service has not begun the process of planning for their replacements.

Performance of New Assets

GAO's recent report found the new assets it reviewed are demonstrating improved performance over the legacy assets they replace. However, the new assets have yet to meet all key performance parameters (KPPs). GAO found the Coast Guard's approach to the initial operational test and evaluation (IOTE) process failed to ensure that KPPs were met before the Service and DHS made decisions to enter full rate production (GAO-14-450). For instance, the FRC was required to meet six KPPs governing the cutter's speed, sea keeping ability, endurance, interoperability, and readiness. Of the six KPPs, only three were tested. Of the three tested, only one was partially met. Despite the failures in IOTE, DHS approved the FRC for full rate production. DHS directed the Service to develop solutions to problems found in IOTE and conduct follow on testing by the end of FY 2015. By contrast, the Department of Defense requires specific minimum performance standards be met prior to entering full rate production. GAO found the Coast Guard's inconsistent approach to IOTE could result in costly refits for assets, additional delays in the delivery of new assets, and less certainty in acquisition cost estimates.

WITNESSES

Panel I

Vice Admiral Charles Michel
Deputy Commandant for Operations
United States Coast Guard

Ms. Michele Mackin
Director, Acquisition and Sourcing Management
Government Accountability Office

Panel II

Mr. Ronald O'Rourke
Specialist in Naval Affairs
Congressional Research Service

Mr. James H. Offutt
National President
Navy League of the United States

FY 2015-2019 Five Year Capital Investment Plan (CIP)
Acquisition, Construction & Improvements

(Thousands of dollars, budget year dollars)	FY 2014 Enacted	FY 2015 PRESBUD	FY 2016	FY2017	FY 2018	FY 2019	Total Acquisition Cost[1]	Estimated Completion Date[1]	Total Quantity[2]
Vessels	**$999,000**	**$903,000**	**$580,000**	**$649,000**	**$974,000**	**$939,000**			
Survey and Design - Vessel and Boats	$1,000	$500	$1,000	$1,000	$1,000	$1,000	Not Applicable	Not Applicable	Not Applicable
In-Service Vessel Sustainment	$21,000	$24,500	$66,000	$94,000	$73,000	$46,000	Not Applicable	Not Applicable	Not Applicable
Response Boat - Medium (RB-M)	$10,000	$0	$0	$0	$0	$0	$610,000	2015	170
National Security Cutter (NSC)	$629,000	$638,000	$75,000	$130,000	$30,000	$47,000	$5,504,000	2019	8
Offshore Patrol Cutter (OPC)	$23,000	$20,000	$90,000	$100,000	$530,000	$430,000	$10,523,000	2034	25
Fast Response Cutter (FRC)	$310,000	$110,000	$340,000	$220,000	$220,000	$315,000	$3,928,000	2027	58
Cutter Boats	$3,000	$4,000	$4,000	$4,000	$0	$0	Not Applicable	Not Applicable	Not Applicable
Polar Icebreaker	$2,000	$6,000	$4,000	$100,000	$20,000	$100,000	TBD	TBD	TBD
Aircraft	**$175,310**	**$68,000**	**$238,000**	**$185,300**	**$70,000**	**$78,000**			
HC-144A Conversion/Sustainment	$9,200	$15,000	$3,000	$25,500	$0	$0	TBD	TBD	TBD
HC-27J Conversion/Sustainment	$24,900	$15,000	$130,000	$100,000	$30,000	$40,000	Not Applicable	Not Applicable	14
HH-65 Conversion/Sustainment Projects	$12,000	$30,000	$40,000	$35,000	$30,000	$30,000	$1,150,400	2019	102
HC-130J Acquisition/Conversion/Sustainment	$129,210	$8,000	$50,000	$9,800	$0	$0	TBD	TBD	TBD
Unmanned Aircraft System (UAS)	$0	$0	$15,000	$15,000	$10,000	$8,000	TBD	TBD	TBD
Other	**$64,930**	**$57,300**	**$68,500**	**$67,000**	**$33,000**	**$28,500**			
Program Oversight and Management	$10,000	$18,000	$20,000	$20,000	$20,000	$20,000	Not Applicable	Not Applicable	Not Applicable
Systems Engineering and Integration	$204	$0	$0	$0	$0	$0	Not Applicable	Not Applicable	Not Applicable
C4ISR	$40,226	$36,300	$40,000	$40,000	$8,000	$5,000	$1,053,000	2026	Not Applicable
CG-LIMS	$1,500	$3,000	$8,500	$7,000	$5,000	$3,500	Not Applicable	Not Applicable	Not Applicable
Nationwide Automatic Identification System (NAIS)	$13,000	$0	$0	$0	$0	$0	$276,800	2014	58
Shore and ATON	**$23,000**	**$40,500**	**$100,000**	**$110,000**	**$88,000**	**$70,000**			
Major Shore, ATON and S&D	$2,000	$19,500	$55,000	$50,000	$50,000	$30,000	Not Applicable	Not Applicable	Not Applicable
Military Housing	$18,000	$0	$0	$0	$0	$0	Not Applicable	Not Applicable	Not Applicable
Major Acquisition Systems Infrastructure	$0	$16,000	$40,000	$55,000	$33,000	$35,000	Not Applicable	Not Applicable	Not Applicable
Minor Shore	$3,000	$5,000	$5,000	$5,000	$5,000	$5,000	Not Applicable	Not Applicable	Not Applicable
Personnel and Management	**$113,395**	**$115,313**	**$116,466**	**$117,631**	**$115,407**	**$113,161**			
AC&I Core	$439	$0	$0	$0	$0	$0	Not Applicable	Not Applicable	Not Applicable
Direct Personnel Costs	$112,956	$115,313	$116,466	$117,631	$115,407	$113,161	Not Applicable	Not Applicable	Not Applicable
TOTAL	**$1,375,635**	**$1,084,193**	**$1,102,966**	**$1,128,931**	**$1,180,407**	**$1,228,661**			
	-$149,459								
	$1,226,176								

MAINTAINING COAST GUARD READINESS

WEDNESDAY, JUNE 18, 2014

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON COAST GUARD
AND MARITIME TRANSPORTATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m. in Room 2253, Rayburn House Office Building, Hon. Duncan Hunter (Chairman of the subcommittee) presiding.

Mr. HUNTER. Good morning. The subcommittee will come to order. The subcommittee is meeting today to review the Coast Guard's major acquisition programs.

After over a decade, the Coast Guard has finally taken delivery of critically needed new and improved assets. Unfortunately, just as the Service's acquisition program is starting to see success, the President is yet again proposing a budget that could doom it to failure. The President's budget cuts funding needed to acquire critically needed replacement assets by 21 percent. That is one-fifth of what is needed. This will further delay the delivery of new assets, increase acquisition costs for taxpayers, exacerbate growing capability gaps, and seriously degrade Coast Guard mission effectiveness.

As this subcommittee has continually highlighted, the Coast Guard currently operates tens, and in some cases, hundreds of thousands of hours short of its operational targets. This means assets are not there for the Service to secure our ports, protect our environment, and ensure the safety of our waterways.

A few weeks ago, the Commandant of the Coast Guard and the commanding officer of U.S. Southern Command, John Kelly, testified before us that one of the largest reasons why drug interdiction rates have fallen to historic lows in recent years is due to the Coast Guard failing legacy assets. The only way to reverse the decline in the Coast Guard's mission performance is to make the necessary investments to acquire new and improved assets.

Unfortunately, based on the last few budget requests, as well as the fiscal year 2015 through 2019 CIP, it appears the President refuses to make those investments. According to the Capital Investment Plan, the CIP over the 5 five fiscal years, annual funding for Coast Guard acquisitions never exceeds $1.2 billion. That is approximately $1 billion less than the GAO and the former Commandant of the Coast Guard have testified is needed on an annual basis to keep the current acquisition program on schedule and on budget.

As I have said for some time now, just since I have been the chairman here, so about 2 years, if the President is going to continue to send us budgets that fail to pay for the assets needed to meet Coast Guard mission needs, then it is time for him and to you to review the Coast Guard mission responsibilities.

Fortunately, it appears that somebody may be listening. I understand the Coast Guard recently announced it intends to start a review of the Mission Needs Statement guiding its current acquisition program. While this is good news, I have two concerns.

First, the revised MNS needs to be budget conscious. This means the administration either needs to identify what missions the Coast Guard will no longer do, or how they intend to pay for the increase in assets and capabilities needed to meet current and future missions.

Second, it needs to happen quickly. The acquisition program is already so far behind schedule and over budget, we simply do not have the years to wait for this administration's plan for the program's future. I mean if things stay the way they are now—I have 4 more years as chairman. I am not going to wait for 2 of those to get the new Mission Needs Statement. OK? This subcommittee intends to move an authorization bill early next year, and we are going to see something from the Coast Guard by then.

I thank the witnesses for appearing today, and look forward to their testimony.

With that I yield to Ranking Member Garamendi.

Mr. GARAMENDI. I am going to move very quickly here. I want to get on to hear the testimony. Very important subject. I will enter my statement into the record.

I will note that the President's budget is a reflection of the Budget Control Act that the House of Representatives and the Senate passed.

So, with that, let's get this underway. There is little doubt that the Coast Guard has done an admirable job since 2008, when it assumed full control of the largest recapitalization program in the Service's history. Nonetheless, problems are evident, and the oversight of this committee is important.

I look forward to the testimony. My written statement will be, without objection, hopefully, entered into the record. Let's move on. Thank you.

Mr. HUNTER. Without objection, so ordered.

On our first panel of witnesses today are Vice Admiral Charles Michel, Deputy Commandant for Operations of the United States Coast Guard, and Ms. Michele Mackin, director, Aquisition and Sourcing Management at the Government Accountability Office.

Admiral Michel, I understand you have a long and distinguished history with our subcommittee. Welcome back. John put that in there.

[Laughter.]

Mr. HUNTER. Welcome back, and thank you for your service. You are now recognized for your statement.

TESTIMONY OF VICE ADMIRAL CHARLES D. MICHEL, DEPUTY COMMANDANT FOR OPERATIONS, UNITED STATES COAST GUARD; AND MICHELE MACKIN, DIRECTOR, ACQUISITION AND SOURCING MANAGEMENT, GOVERNMENT ACCOUNTABILITY OFFICE

Admiral MICHEL. Well, Chairman Hunter, Ranking Member Garamendi, good morning. And thank you very much for the welcome, and thanks for the opportunity to testify today on Coast Guard readiness and the status of major systems acquisitions. My complete statement has been provided, and I ask that it be entered into the record, and that I be allowed to summarize my remarks.

The Coast Guard faces increasing challenges in meeting its missions in a difficult fiscal environment, with rapidly advancing technologies employed by both legitimate maritime industries, as well as our adversaries. Our aging surface vessels are of particular concern, as they play a unique role in the Nation's layered security, and are often the Nation's sole method for asserting and protecting national imperatives in the offshore and coastal realms.

As Alexander Hamilton recognized in creating the revenue cutter service in 1790, maritime interdiction is often the most efficient and effective method of protecting our citizens against transnational threats. In order to do this, Coast Guard assets must be able to compel vessels engaged in illicit activity to stop, which at times requires employment of force. In addition, our assets must be able to deliver personnel to take law enforcement or other appropriate action. Without such capabilities, our Nation may be unable to act against these threats before they reach land, where they become exponentially more difficult to track and achieve successful endgame.

As the Coast Guard's Deputy Commandant for Operations, I understand the unique value that capable Coast Guard assets bring to the front line of defense for the American people, our allies, and our neighbors. I have also witnessed the devastating impacts when vessels are unreliable, obsolete, or simply out-classed by our adversaries or by the sea itself. Fielding and maintaining capital assets like ships and aircraft requires a national commitment.

Our Nation, as a major maritime power, has traditionally and rightly relied upon the great oceans as not only vital trade routes essential to national prosperity and global engagement, but also as an inherent line of defense against foreign threats. To ensure these enduring national imperatives remain robust, the Coast Guard is committed to responsibly recapitalizing our fleet, while managing risk to preserve the effectiveness of our frontline operations.

I am pleased to update you today on key acquisition programs. Before I begin that, I am pleased to report that the fiscal 2015 to 2019 Capital Investment Plan, or CIP, was recently delivered to the Congress, and I am happy to answer your questions about this plan.

The first three National Security Cutters, or NSCs, are operational and performing the full range of Coast Guard missions. Later this year we will commission the fourth NSC, which will be the first assigned to our Atlantic area, and will be home-ported in Charleston, South Carolina. The fifth and sixth NSCs are currently in production, and we are approaching the start of production for

the seventh NSC. The fiscal year 2015 budget request and the recent House Appropriations Committee mark include funding for the eighth NSC, which will complete the full program of record for this cutter class.

To illustrate the NSC's impressive capabilities just in the past 4 months, the three operational NSCs have seized more than 4½ metric tons of pure cocaine headed to our shores. In just six boardings, Mr. Chairman, these seizures amount to approximately 60 percent of all the cocaine seized by all the law enforcement agencies within the borders of the United States in a typical year, and is a nearly $100 million wholesale funding source that was taken from ruthless drug trafficking organizations.

Further, this near pure cocaine, as well as the suspects and conveyances, were taken off the water before they reached the shore and spread waves of devastating crime, corruption, public health issues, and other effects against our citizens and our international neighbors.

The NSC is a versatile asset. It protects U.S. natural resources in some of the harshest maritime conditions, conducts illegal migrant interdiction operations, and integrates with DOD forces. The NSC program has also provided our acquisitions enterprise with expertise in controlling risk and achieving stability in cost and schedule, laying the foundation for the successful acquisition of the Offshore Patrol Cutter, or OPC.

As the committee is aware, on February 11, 2014, the Coast Guard awarded fixed price contracts to three contractors for the preliminary and design contract for the OPC. Following the award, two protests filed with GAO prevented the contracts from commencing. I am pleased to announce that on the 2d of June 2014 GAO upheld the contract award. This allows work to proceed on phase 1 of a 2-phase acquisition strategy. During this initial 18-month preliminary and contract design phase, three contractors will mature their designs and develop fixed-price incentive proposals.

Following a thorough evaluation, the Coast Guard plans to down-select to a single contractor for the production of an initial segment of 9 to 11 OPCs. During phase 2, the selected contractor will complete their detailed design in preparation for production of the first OPC.

We have begun activities in support of the polar icebreaker acquisition project, including the recent approval of acquisition decision event number one. This milestone, which validated the need for the project, allows the Coast Guard to move forward into the next phase, where we will develop a concept of operations, conduct an analysis of alternatives, create a life cycle cost estimate, and refine operational requirements. Since this is a unique national platform and truly a national asset fulfilling many vital national missions in the high-latitude regions, discussions with numerous Federal partners and the administration have commenced to develop the extensive requirements for polar ice-breaking capability.

Further, it has been—since it has been about 40 years since the Nation last undertook building a heavy icebreaker, it will take specialized techniques and materials to construct a modern heavy icebreaker. The successful 2012 reactivation of the *Polar Star* has ex-

tended the Nation's polar icebreaking capabilities, and the Coast Guard is exploring the possibility of reactivating *Polar Sea* as a bridging strategy, until a new icebreaker can be constructed and is operational.

In the aviation domain, we are anticipating delivery of the first of 14 planned C–27Js obtained from the Air Force, thanks in large part to the efforts of this subcommittee. This month we will establish the C–27J asset project office at the Aviation Logistics Center in Elizabeth City, North Carolina.

Mr. Chairman, in closing, for over 223 years the Coast Guard has safeguarded our Nation's maritime interests. While our missions have not fundamentally changed, the challenges and opportunities for our maritime Nation constantly evolve. The Coast Guard will continue to maximize current mission accomplishment in this dynamic environment, while responsibly investing in the Nation's maritime future.

Thank you for the opportunity to testify before you today; I look forward to hearing your concerns and answering your questions.

Mr. HUNTER. Thank you, Admiral.

Ms. Mackin, you are recognized.

Ms. MACKIN. Chairman Hunter, Ranking Member Garamendi, members of the subcommittee, good morning. Thank you for having me here today to discuss Coast Guard readiness and its acquisition of ships, aircraft, and communication systems. My statement today is based on a report we are issuing today, work we did at the request of this subcommittee.

As we note in our report, the Coast Guard has made strides in its acquisition management. It has maximized competition, for example, in procuring the Fast Response Cutter and the Offshore Patrol Cutter. It is delivering assets to the operators who are very pleased with the enhanced capabilities. And key test events are taking place. This testing is very important for ensuring that the assets are operationally effective.

Today I would like to highlight what we view as a pressing concern facing the Coast Guard, and that is the affordability of its acquisition portfolio. This is especially important in light of significant remaining costs to complete the planned program of record. The Coast Guard still needs about $20 billion to complete the assets in the program of record—those formally part of the deepwater program. This is, in part, because costs have grown for some of the assets.

For example, the National Security Cutter has experienced a $2.2 billion cost increase, and initial estimates for the Offshore Patrol Cutter have grown from $8 billion to up to $12 billion, in large part because the initial estimate was not rigorously developed.

The fact is that the Coast Guard cannot afford its recapitalization program at current funding levels. Over the past 5 years the Coast Guard has received an average of less than $1.5 billion. Still, the Coast Guard has stated it needs $2 billion to $2.5 billion per year to carry out its planned program. Over the past 4 years we have recommended that the Coast Guard and DHS reassess the Coast Guard's acquisition priorities to better balance mission needs and affordability. Thus far, though efforts have been made, an effective reassessment has not occurred.

Compounding the Coast Guard's affordability issues is the wave of costs. That is, an impending spike in funding needs. Key among these is the Offshore Patrol Cutter, which will consume about two-thirds of the Coast Guard's acquisition budget while it is being built. Other looming costs include a service life extension for the 270-foot Medium Endurance Cutters, a strategy to replace aging river buoy tenders, which itself could cost up to $1.5 billion, and a potential new polar icebreaker. These are serious challenges.

Our prior work on best practices of commercial firms found that they place an emphasis on determining whether programs can be developed and sustained within existing resources. In short, best practices dictate that resources should be identified and maintained, or trade-offs explicitly made. If this is not done, programs will have to compete for available funding, and annual funding shortfalls must then be addressed by pushing costs into the future, cutting procurement quantities, or reducing capabilities.

Our concern is that, rather than pursuing an affordable set of long-term needs, the Coast Guard is delaying and reducing its acquisition portfolio on an annual basis. This approach puts pressure on future budgets, and it also delays fielding capabilities to the end user, as schedules are pushed out, which, of course, can lead to increased costs.

In essence, short-term budget decisions may not amount to a good long-term investment strategy. This is why we recommend in today's report that the Coast Guard develop a long-term fleet modernization plan. Such a plan, looking out 20 years and taking into account mission needs and expected funding, would illuminate what is feasible in the long term. Without such a plan, the Coast Guard is not well positioned to determine how it will meet mission needs. In the meantime, the annual budget process may be supplanting sound acquisition decisions.

Mr. Chairman, Ranking Member Garamendi, this concludes my statement, and I would be happy to answer any questions.

Mr. HUNTER. Thank you very much to both of you. I guess, in this situation too, I will just play kind of the referee, and you guys can go back and forth. It would be kind of fun.

I guess the first question that I have—this is just to help me understand—if you—you are now working on a new Mission Needs Statement, say, over the next year. And you have a Capital Investment Plan that matches your old Mission Needs Statement. And I am wondering how those two kind of fit together, how you have a CIP right now—if you are redoing your Mission Needs Statement, how do you really know what you need? It is like the Pentagon has never been audited, so how does it know what it spends in the first place to figure out what it needs later? So, how do you reconcile those?

Admiral MICHEL. Well, sir, the current CIP is based on the Mission Needs Statement from 2004, which is our best estimate and remains our best estimate. As you note, we are actually re-looking at our Mission Needs Statement to make sure that it reflects today's realities, both——

Mr. HUNTER. Which means it will change, because your old Mission Needs Statement didn't match the amount of money the administration has given you. And that is the problem. That is why

we are having them—that is why we are asking you to redo the Mission Needs Statement, to match the budgetary environment that you are in.

Admiral MICHEL. Well——

Mr. HUNTER. So it is going to be different.

Admiral MICHEL. I think maybe we have got a little bit of a different concept on what the Mission Needs Statement is. The Mission Needs Statement sets forth the mission requirements for the Coast Guard, and is not constrained by budget. Now, to actually bring the materials over here onto the Hill, there is obviously a budget aspect associated with that when you are talking about a capitalization plan. But the Mission Needs Statement sets forth the mission needs of the Coast Guard as in 2004, and as I anticipate the new Mission Needs Statement is going to, as well.

Mr. HUNTER. But what the problem has always been is that you can't complete your mission, because you have too many missions and not enough assets to do it. Right?

Admiral MICHEL. Yes, sir. As Ms. Mackin notes, that is my serious challenge, and I live that every day, sir, is that there is more mission need for the Coast Guard than there is Coast Guard to actually go out and do the mission. So I have to manage that risk on a daily basis. And whenever I put inputs into the acquisition process on what I need out in the field as the Deputy Commandant for operations, you know, I have got to take the budgetary realities into account in actually fulfilling those mission needs.

But the mission needs remain, just like they do in the 2004 Mission Needs Statement, which is our current statement of what we need in order to get the job done. Now, how you actually go about acquiring assets in order to fulfill those mission needs, that is the art, sir.

Mr. HUNTER. Well, I guess what I am curious, then, in seeing, is a real Mission Needs Statement. So you can have the one that is fluff in the sky, you can have that one that has everything, regardless of the budgetary environment, but then I would like to see the real one that you do, that you prioritize what you are going to do, day in and day out, based on what you have.

I guess that is what I am curious in seeing, because so far in these hearings for the last couple of years it is, "We are going to try to do everything. We can only get 75 percent of most things, and we are up here on these few things, and we keep failing and failing," by your own recordkeeping. And I understand that game, because if you say that you are failing, "We need more money," then Congress goes, "OK, we want you to succeed, we are going to give you some more money." But that is not going to happen any more.

So, what we need is a real—what you look at, and what your prioritized Mission Needs Statement is in real life. That is constrained by the budget. And you can have your pie-in-the-sky Mission Needs Statement too that has everything. We would like to see the real thing where you say, "This is what we can do. This is it."

Admiral MICHEL. Yes, sir. Well, I wouldn't characterize our 2004 Mission Needs Statement as fluff. It is the best information that I can provide to you——

Mr. HUNTER. What I mean is you have in it everything. I didn't mean it was fluff. What I mean is it has everything that you think the Coast Guard should do. Pie in the sky is a better——

Admiral MICHEL. Sir, you have my commitment that the Mission Needs Statement will reflect our very best estimate on the mission demands for the Coast Guard. And we need to bring that to your attention, sir, because we are having difficulty building a Coast Guard that can actually fill out the demand signals necessary. So what it requires is me and other members of the Coast Guard to address that on a risk-based format.

And, you know, I would love to have a world where I could actually build a Coast Guard that could fulfill the demand signal for the Coast Guard. That is not currently the world that I live in right now. And I need to ensure that I bring those needs, that demand for the Coast Guard, to your attention so you can take a look at that. And then you can also take a look at the risk that the Coast Guard is incurring on these national missions with the assets that it currently has, and whatever it is building towards the future.

But you have my commitment, sir. I am not interested in——

Mr. HUNTER. That is what I would like to see. I would like to see the risk-based prioritization that you are doing.

Admiral MICHEL. Absolutely, sir.

[The information follows:]

The Coast Guard is making difficult tradeoffs to best balance critical recapitalization and frontline operations. This strategy ensures we address the degraded condition of our legacy fleet, ensure capability for the future and provide frontline operations where the Nation needs it the most. The Nation faces risk across all our statutory responsibilities, and we seek to address the highest with available resources. One way we are addressing this risk is by recapitalizing our aging assets with more reliable and capable assets better suited for today's operating environment and the environment we expect to face in the future.

The Coast Guard's highest risk remains in the offshore fleet and our Capital Investment Plan reflects this risk. We are also addressing other areas of risk, other parts of our fleet that need to be recapitalized to ensure we can provide the type of service the Nation needs and has come to expect in the future. For example, we are continuing our acquisition of Fast Response Cutters to address risk in the coastal zones as our legacy 110-foot patrol boats are removed from service. We are receiving and missionizing C–27Js to address maritime patrol gaps and risks in the coastal and offshore zones. Our critical in-service vessel sustainment project is helping us address risks in other parts of our fleet, such as our aging buoy tenders. We have also engaged stakeholders across government and are moving out on requirements generation for the acquisition of a heavy polar icebreaker to meet whole of government requirements.

Mr. HUNTER. OK. OK, thank you. Let me get that first question, here, we will just ask a quick one.

If the funding levels in the budget and the new CIP are enacted by Congress—so let's go right on to that—how does that affect your missions? And what missions will be affected the most?

Admiral MICHEL. Well, it has a number of different effects. And, you know, as you mentioned, our Commandant has testified before that a more effective capital investment plan would be somewhere in the neighborhood of $2 billion. When you are pushing it down, as you correctly identified, into, you know, 1.2-ish, 1.1-ish, what it

does is it forces everything to move to the right. It makes the assets harder to get in a timely manner, and it presses everything out to the right, which means I have got to, on a daily basis, use the assets that exist right now.

Some of the assets are—like our 210-foot cutters—when I got off as my last commanding officer job in 2006 as the captain of the Coast Guard cutter *Resolute*, I told the crew that, you know, they were serving on a classic. That ship had been commissioned in 1966. I was 3 years old when that ship was commissioned.

[Laughter.]

Admiral MICHEL. And while that ship, you know, may have aged more gracefully than I have over the years, it—still, in 2006, that ship was 40 years old, and people had been living inside this metal ship, 7 by 24, operating out on the seas, doing all this—all these missions, operating helicopters, you know, navigating, and so on and so forth, on a ship that was 40 years old. And I almost couldn't believe that I was standing on the deck of a 40-year-old ship. There are very few countries in the world that would field something like that, particularly as a frontline asset. And yet, here we are in 2014, now the ship is 48 years old. And the OPC has been pressed further out to the right. That is its relief on station.

So, I have got to manage those suboptimal assets for another many, many years. And that is what happens when you don't have, you know, a CIP that is responsive to the fleet that we have out there, and the recapitalization needs.

Mr. HUNTER. Last question, and tying in with the first question. Is the Mission Needs Statement going to be conscious of the CIP, of the funding levels in the CIP?

Admiral MICHEL. Sir, you know, the funding levels in the CIP, very interesting. You know, I have been asked questions about how this is—compares to Navy shipbuilding, and things like that. Boy, I wish I had some funding stability like the Navy had, and could actually provide you with, you know, reasonable future projections on the availability of capital resources in order to do this type of stuff.

But the—unfortunately, the history of this program——

Mr. HUNTER. If you would have acquisitions like the Navy, you would have never had the big deepwater problem that you had, too.

Admiral MICHEL. Well——

Mr. HUNTER. It is good to look back and say things like that. I agree, wholeheartedly.

Admiral MICHEL. Yes, sir. But one of the things that we got—we have to have in order for me to provide the predictability to you is a stable funding source, and we haven't had that. And while I am in agreement with GAO that, you know, a 20-year fleet plan may be of value—and that is actually one of the things that we are going to try to work on—the value eliminates very quickly, and it actually becomes deceiving if you don't take into account that—you know, the fluctuating funding streams that have been a part of this program almost from its inception. And I wish we could get some stability in funding to provide that type of predictability into the future.

But you have my commitment, sir, that that mission statement is going to be my best—my, and the Coast Guard, and the Com-

mandant of the Coast Guard's very—and the Secretary of Homeland Security, and anybody else who needs to sign off on that particular document—very best estimate on what the demand signal for the Coast Guard is, because these are national missions that you, the Congress, the American people through their representatives, have tasked the Coast Guard with performing these functions.

And it is up to us to not dumb this down and not, you know, bring down the demand signal to some artificial level that gives you the impression that risk doesn't exist there. I would rather provide you with the raw truth on what the demand signal for the Coast Guard is, and let you take a look at the risk analysis that is being done by myself and others in the organization.

Mr. HUNTER. OK. And we will take it. Hey, with that, I am going to step out and go to the—there is a little secret brief on the Taliban detainees that were released. Thank you. And I will be back in a minute. I yield to Mr. Garamendi for his opening questions.

Mr. GARAMENDI. Thank you, Mr. Chairman. As you leave, the discussion that just ensued reminds me very much of that very famous Pogo comment, "We have seen the enemy, and it is us."

Admiral, thank you for your testimony, and for your very forthright statement that you can only do what we allow you to do, and you can only have as your responsibilities what we have given you. The problem lies here, in the Congress. The problem is that this Congress has decided that a small Government is the best thing for this Nation. And that plays itself out in the Coast Guard, it plays itself out in the hospitals, it plays itself out in the Veterans Administration, and many other activities that the general population of the United States would like to see us do.

But the reality is when you want a small Government you get the kind of problems that this committee is now trying to work its way through: a Mission Needs Statement that is now 10 years old, soon to be updated. When would that update be available?

Admiral MICHEL. Sir, we are actually trying to complete that for our maritime patrol forces, which is the surface vessels that we are talking about, to actually coincide with the end of the P&CD phase for the OPC, because that will help inform that process as we down-select to the single contractor.

But this is no easy effort. And, you know, the 2004 Mission Needs Statement was based on the integrated system. So it is very hard to pull apart individual assets from that 2004 Mission Needs Statement. Now that we have broken apart the project into individual segments, we are going to raise the level of maturity for that, but that is going to raise the difficulty in doing it, because we are relying on an integrated systems 2004 Mission Needs Statement. But we are trying to get that, sir, in conjunction with the completion of the P&CD phase for the OPC.

Mr. GARAMENDI. So when?

Admiral MICHEL. Eighteen months is our target, sir.

Mr. GARAMENDI. From today?

Admiral MICHEL. Yes, sir.

Mr. GARAMENDI. OK. The mission is actually, as you just said in the previous discussion, set by the Congress. Is there any need to change the mission? And, if so, what?

Admiral MICHEL. Well, I will go back to one of our older Commandants. And he was trying to justify sort of the reason for the Coast Guard, and he said, you know, "You could break up the Coast Guard and take our 11 statutory missions and send them somewhere else, but they are still going to have to get done. These are enduring national missions. A lot of them have existed since 1790 and have to be done by somebody."

The beauty of investing in the Coast Guard is you get one organization that you can go to that has a platform like the OPC that isn't just designed to do drug interdiction, but it does drug interdiction, it does fisheries work, it can act as a command and control platform in situations like Hurricane Sandy, it can operate——

Mr. GARAMENDI. So the answer—excuse me, we are going to be quickly out of time, and I should probably attend that hearing——

Admiral MICHEL. Yes, sir.

Mr. GARAMENDI. The issue, then, is the mission is defined by Congress, and the Coast Guard has interpreted that mission and brought it forward as, "Here are the things we need to do, and here is what—here are the things we need to do the mission that Congress has specified." OK.

Your earlier testimony indicated that you are not given the resources. The chairman was speaking to this issue, but he was incorrectly identifying where the problem lay. The problem is here. The problem is with this Congress not providing the resources necessary. The Budget Control Act and other sequestration issues are at play here.

So, if—am I correct in suggesting that, in order for the Coast Guard to be able to carry out in the very best possible way the missions that have been given to the Coast Guard by the United States Congress, you are going to need money? Is that correct?

Admiral MICHEL. Yes, sir. The Coast Guard doesn't have any appropriations authority.

Mr. GARAMENDI. OK. Now, the question for this committee is what are we going to do to make that money available. Your Capital Investment Program, your CIP program, I think it is important for the Coast Guard to come forward with the need to—excuse me the would like to and the need to. In other words, the prioritization.

The reality is that, in the current state of affairs here within Congress, there isn't going to be money available. We will be, in the next couple of days, voting on tax reductions, which will pass the House of Representatives, which will make less money available in the future. So we need to have the nice to and the need to, the absolute have to have, versus what we would—you and us, you and I and perhaps the other members of this committee, would like to have. That is what we are going to have to have in order for us to do our job and to assist you.

I don't believe the mission is going—the mission statements are going to change. And you are going to have to help us help you figure out exactly what needs to be done.

There is a series of questions I have about the C–27, how it is coming along, what you need to do to put that into effect. Apparently, it was a high-priority issue. You are correct in saying this committee and the members of it assisted you and the Coast Guard in making that available. We are pleased to have done that. Now what do you need, need to, must have, in order to get that operational?

Admiral MICHEL. Yes, sir. Well, this is the induction of an entire new airframe into the Coast Guard system. So not only the infrastructure pieces need to be put in place, but training, maintenance, all those type of things. And we are stepping out smartly on that.

The standup of the asset project office, which Congress helped us with with some funding, is going to be a step in the right direction, it is going to be working on the training manuals, maintenance pieces, how we are going to integrate this in the air fleet, make some recommendations on where these things should best be sited.

The good thing about these aircraft is they are actually military standard aircraft, and they have got things like secure communications system——

Mr. GARAMENDI. Excuse me.

Admiral MICHEL. Yes, sir.

Mr. GARAMENDI. I am out of time, and would you please be very specific in writing to the committee as to exactly what you need, when you need it, in order to get these things up and operational? I understand that they are now being over somewhere in North Carolina. And then also where you intend to deploy them, and the schedule for the deployment, if you could, give that to us in writing.

Admiral MICHEL. Sure.

[The information follows:]

IMPLEMENTATION OF THE C–27s

C–27s Requirements:

The Coast Guard continues to develop requirements associated with transfer, induction, missionization, and deployment of the C–27 aircraft authorized in the 2014 NDAA. The C–27 Asset Project Office, established this month at the Aviation Logistics Center in Elizabeth City, NC, will further refine cost estimates and implementation schedules. Current estimates for the C–27 AC&I project, as displayed in the FY15–19 Capital Investment Plan, are as follows:

FY14	FY15	FY16	FY17	FY18	FY19
$24,900	$15,000	$130,000	$100,000	$30,000	$40,000

Preliminary operations and maintenance cost estimates are made based on limited Air Force O&M provided C–27J APO operations, as well as Coast Guard experience operating C–130 and HC–144 aircraft; but definitive O&M data will need to be refined as the aircraft enters active service at full programmed flight hours. The Coast Guard anticipates stand up of the first C–27 operational unit in FY16.

Deployment Schedule of C–27s:

Estimated Acquisition Schedule through Completion (based on initial BCA estimates)

2014	Commission APO, receive first aircraft, establish contracts for aircraft restoration and Contractor Logistics Support (CLS)
2015	Continue stand up of APO, receive 3 aircraft from AMARG,[1] Contractor Logistics Support (CLS)
2016	Continue APO operations, receive 4 aircraft from AMARG, start missionization NRE, initial issue spares, CLS, stand up first operational unit
2017	Continue APO operations, receive 4 aircraft from AMARG, contract for operational & maintenance training devices, missionize first aircraft
2018	Receive 2 aircraft from AMARG, missionize 2 aircraft
2019–2026	Complete Logistics, Missionize remaining aircraft, stand up second operational unit, stand down APO

[1] AMARG: Aerospace Maintenance and Regeneration Group—aircraft storage facility at Davis-Monthan Air Force Base

Mr. GARAMENDI. Now I have a question for the GAO. You have pointed out the problem. And I would like to have your analysis——

Mr. SOUTHERLAND [presiding]. Mr. Garamendi? I am sorry. I mean we have got—I know we have got other gentlemen. Your time, as you just so noted, has expired. So we can come back for more questions, I am fine with that.

But Mr. Rice, 5 minutes.

Mr. RICE. I think I heard you say that your current budget is how much, 1-point what?

Admiral MICHEL. This is in—the President's budget request for AC&I is about 1.1.

Mr. RICE. 1.1?

Admiral MICHEL. Yes, sir.

Mr. RICE. What did the administration ask for in their budget, do you know?

Admiral MICHEL. Excuse me. One more time, sir.

Mr. RICE. What did the administration ask for in the President's budget for this year. What did he ask for, funding level?

Admiral MICHEL. 1.084, 1.1.

Mr. RICE. So that is not what Congress asked for; that is what the President asked for.

Admiral MICHEL. That is the President's 2015 budget request for the AC&I account for the Coast Guard.

Mr. RICE. Right. And what did you say it would take to fulfill all of your—I mean if you—to carry out every mission, your absolutely wish list, what would it take to carry that out on an annual level funding basis?

Admiral MICHEL. Well, I wouldn't want to characterize it as a wish list, because, as an operator, my wish list is pretty long.

Mr. RICE. OK, OK, so——

Admiral MICHEL. But our prior Commandant has testified that a responsible and adequate capitalization account for the Coast Guard would be somewhere in the neighborhood of $2 billion for AC&I.

Mr. RICE. So about double what the President has proposed for this year. Is that correct?

Admiral MICHEL. Yes, sir.

Mr. RICE. All right. Now, as a result, when was the last time that you received the full amount that you would need on an annual basis to fully fund all of these requirements that you have dictated? When was the last time that happened?

[No response.]

Mr. RICE. That would be never?

[Laughter.]

Admiral MICHEL. Sir, you can go back in the program. I don't think we have ever had a $2 billion CIP. I can go back and take a look. I can't remember way back in the history, but I am pretty sure we have never had one of those.

Mr. RICE. OK. What are the biggest, most glaring holes that we have now, as a result of never having been funded to the extent that you think it would be required?

Admiral MICHEL. Sir, the—I can tell you the number-one priority is on surface vessels and the recapitalization of the surface fleet.

Mr. RICE. So we got some old boats running around there.

Admiral MICHEL. Old ships. Yes, sir.

Mr. RICE. Yes. Now, have any of those sank recently, or do we have any problems with getting them in and out, or——

Admiral MICHEL. Thank goodness none of them have sunk, which is good. But there have been quite a number of casualties, and I can provide you data on the breakdown rates of these ships. We have gone through some——

Mr. RICE. You say "casualties." Are people being killed?

Admiral MICHEL. Sir?

Mr. RICE. You said "casualties." Are people being killed?

Admiral MICHEL. No, sir. That is a term for a machinery——

Mr. RICE. OK, got you.

Admiral MICHEL [continuing]. Fault, a machinery casualty.

Mr. RICE. OK.

Admiral MICHEL. Not personnel, sir.

Mr. RICE. Right, OK. How does our Coast Guard stack up with the coast guard or coastal protection with other countries? I mean England, France, Italy, all those others.

Admiral MICHEL. Coast guards vary throughout the world. I would say for the coast guards that look sort of like the U.S. Coast Guard, our fleet is amongst the oldest.

I will give you an example. We just yesterday met with the head of the Chinese Coast Guard, the China Coast Guard. And their recapitalization program, at least as they laid out, is massive. I mean they are talking in the neighborhood of 400 patrol boats to fulfill the missions, as well as some of the larger things.

So, we have got an old fleet, we are very proud of it, and we keep it in the best shape that we possibly can, but it needs to be replaced, sir.

Mr. RICE. How many patrol boats do we have?

Admiral MICHEL. We have got—I think we have got forty-nine 110-foot patrol boats, although they are coming in and out, so there may be one or two different, because they are actually being replaced by the Fast Response Cutters, or FRCs, and we have got, I think, our 9th and 10th ones of those that are actually in or near in service. That will eventually build up to a program of 58 for the Fast Response Cutters.

Mr. RICE. I would like to ask you a couple questions, if I could.

Ms. MACKIN. Yes, please.

Mr. RICE. Have you reviewed the—I don't want to call it a wish list. What would—how would I characterize it? I don't want to say anything that is wrong.

Admiral MICHEL. I would say the requirements as expressed in the Mission Needs Statement.

Mr. RICE. OK. Have you reviewed that in the Mission Needs Statement? Is there anything—he answered earlier that we don't need to change the mission of the Coast Guard. Have you reviewed that to see if there is anything that you would suggest taking out of the mission, or——

Ms. MACKIN. We—you know, we have been reviewing the deepwater program for over 10 years. I personally have been involved in many of those audits. And the current MNS, the current Mission Needs Statement, reflects the deepwater program of record. So that is what it is. And we certainly agree it needs to be revised. Was very happy to see that the Coast Guard is working on that, and that DHS is going to do a portfolio analysis of Coast Guard acquisitions, taking into account affordability, which is very important.

Funding levels are not what the Coast Guard would like to have, but they have not actually fluctuated that much over the past 5 years. So we think that the Coast Guard can have a realistic idea of what it can expect.

We had a chance—if I may just comment on the CIP, the current CIP that was released this week—we had a chance to review it. And in many cases, program baselines are not reflected in the CIP. In other words, for the Fast Response Cutter there is a $100 million shortfall in the CIP every year, give or take. That means either the Fast Response Cutter baseline is going to need to be revised again. Is the schedule going to be delayed again? That will increase costs.

So, we would really like to see the CIP be more in line with the acquisition baselines for the individual projects, or the Coast Guard, which is already having some readiness issues, obviously, it is going to only get worse.

Mr. SOUTHERLAND. The gentleman's time has expired.

Mr. RICE. Thank you. Thank you for what you do, thank you.

Mr. SOUTHERLAND. I recognize the gentleman from Florida.

Mr. JOLLY. Thank you, Mr. Chairman. I appreciate the comments, appreciate the testimony. And I understand that having to balance limited resources among your air and sea assets, I appreciate that. I learned from my predecessor early on that the Coast

Guard is one agency that does more with less than just about any other agency in the Federal Government. So thank you for what you do. I appreciate it.

I have a question unrelated to air and sea assets. I know you work through balancing limited resources there. Facilities, infrastructure, quality of life for your men and women in uniform is a concern of mine always. We have three facilities in my district. I recently was out at Sector St. Pete, and in the off hours some of your guys are laying tile in a new dining hall, and painting the walls, and doing drywall, and then in the gym, you know, overnight, they are working other issues.

Can you speak to—as you are balancing air and sea assets, you also have facilities and infrastructure that ultimately affect quality of life of those who put on the uniform. Just a general question: Can you comment on the state of that—of those priorities?

Admiral MICHEL. I think it is a great question from a number of different angles, and I share your concerns about our Coast Guard people. And I don't know the guys laying tile, but that is typical Coast Guard stuff, very proud of what we do but, you know, we do with what we are given or sometimes can scrape together.

But the point that you raise is the AC&I account for the shore infrastructure competes directly with the other accounts. And it is a matter of prioritization. Again, if I had a wish list, I would wish for lots of things to bring better quality of life, better housing to our Coast Guard personnel, better facilities that they can take care of. But right now, it has got to compete directly with our surface assets. And our surface assets are just a bleeding wound, and they impact our citizens every day, they impact our neighbors every day, and we need to get that fixed.

So, I have got—sir, I appreciate your concern, because that is on my radar, as well. But, you know, I have to rack and stack these——

Mr. JOLLY. No, I understand, and it is really not a criticism. I guess maybe—correct me if my assessment is wrong—it seems to have—it comes in last right now because it probably has to.

Would you—I mean I guess what projects actually make it, get funded? Is it really when the roof is collapsing at this point, in terms of how you have to prioritize? Or are there quality of life enhancements that there are funds available for at this point? Or is it just not enough resources?

Admiral MICHEL. At this point you—there is a line item for our shore AC&I.

Mr. JOLLY. Right.

Admiral MICHEL. It is woefully inadequate.

Mr. JOLLY. Right.

Admiral MICHEL. Obviously, if a roof is falling in, or something like that, we are going to have to re-rack and stack things.

Mr. JOLLY. Right.

Admiral MICHEL. But we have got a process where we run through the highest priorities to try to buy down the things at the top of the list.

When it comes down to sort of quality of life things, those typically don't get prioritized. We are talking about basic things like making sure that the power can remain on, and making sure that

you don't have a collapsed roof. I mean that is kind of where we are in the shore AC&I account.

Mr. JOLLY. I appreciate it. Again, thank you for what you do. Appreciate it.

Mr. Southerland, no further questions.

Mr. SOUTHERLAND. Thank you, Mr. Jolly. I have just some prepared questions I wanted to ask, and then I have got a comment I would like to make.

I know, under the CIP, the—your acquisitions would not receive more than $1.2 billion over the next 5 years. That is approximately, you know, $1 billion less than the GAO and the former Commandant have testified is needed. And you have stated that.

The GAO has stated that the Coast Guard needs to consider trade-offs. And again, I have not been here for the entire testimony today. So if you have addressed this already in specificity, I apologize. But what are the trade-offs that the Coast Guard is considering, you know, to make its acquisitions more affordable? You are having to make some hard decisions now.

But, obviously, it seems like, you know, your maintenance, you know, you mentioned housing, you mentioned the tiling and, I mean, what else are you considering, going forward?

Admiral MICHEL. Well, I think the point of affordability you raise is spot on. And we have got to actually systemically include that in our processes. And I will give you an example.

Our biggest acquisition, as GAO knows, is the looming Offshore Patrol Cutter acquisition. That is going to be the biggest line item acquisition that we have got, and sort of the entire effort that we have got here. And we have specifically designed affordability into that contract.

First of all, there is actually a competitive process going on underway, so I am a little bit restricted in the amount that I can say here. And anything that I can say here that I say here that is inconsistent with that, the legalities of that particular project, obviously, that controls.

But affordability specifically designed here—we have been in about a 2½-year discussion with potential competitors for this particular project to try to set affordability cost targets, and that is actually built into the project, itself. This also will be a fixed price incentive-type contract, which can also help with the affordability aspect. And we have also built in a number of off-ramps that, if the project becomes unaffordable, then we have got some second- and third-order choices that we can make in that particular piece.

But I think actually learning the lessons of the NSC and the FRC has allowed us, on this latest acquisition, to actually systemically include the affordability aspects, and make them kind of legally actionable, for lack of a better term, through the contracting mechanism. So, we have built that into this particular class of ship, which is, again, the looming acquisition that we have got.

Mr. SOUTHERLAND. The—are there any parts of your mission—I mean you are asked to do a lot. It seems like there are some items that probably have higher degree of necessity than others. I mean are there any parts of your mission that you would say are—would not be—rise to the other issues that are very, very important?

I mean I didn't word that right, but what is nonessential?

Admiral MICHEL. Boy, that is a very difficult question, since Congress, you know, the American people through their representatives, have statutorily tasked us with all these mission sets now. We have a——

Mr. SOUTHERLAND. But, I mean, you are on the inside. OK? You are there. You have to be going, "Are you kidding me? Really? I mean, we got to do this? This is critical to the safety of the American people, and Congress has given us this." It is obvious that the right hand might not know what the left hand is doing. I have been here 3½ years, and I am telling you, man, that is a disease here.

So, my point is, from someone who has your responsibility, you know, what is critical, what is good? What is the difference between good and best?

Admiral MICHEL. I will give you an example, sir. This is the type of decisions that I have to make as to whether to send one additional ship a year down—that is 20 metric tons of cocaine that will be removed from the system. Through long, historical averages, every one of those ships I send down there that works for a year is 20 metric tons of cocaine. That is almost triple what is seized within the border of the United States on a typical year.

And if that 20 metric tons—if I don't send that ship down there, that 20 metric tons is likely to get into Central America and Mexico, and create all the problems that it has down there, as well as public health issues for our citizens. And I have got to balance that risk against a foreign fishing vessel incursion, against antipiracy work, against migrant interdiction work, against pangas that work their way around our borders every day.

I mean the decisions that we are forced to make, because the mission need exceeds our ability in the Coast Guard to fulfill that, I mean, they are—and I don't want to make this hyperbole, but I mean, they are very serious considerations on the national security of our Nation, as well as our neighbors, and very difficult to rack and stack, you know, safe passage of a vessel in a port with protection of fisheries work, with drug interdiction work, or migrant interdiction work, or search and rescue. All those things are enduring national missions and have huge national consequences, and I wish there was more Coast Guard. It would allow me to have a little bit of a more favorable risk interpretation.

Mr. SOUTHERLAND. Right. Thank you very much. I certainly have other questions, but to be consistent in controlling the time, I will forego those questions. So it seems to be me. I know we have got a second panel. I would like to thank you all for being here, and we will take a quick break while the second panel comes forward. Thank you.

[Recess.]

Mr. SOUTHERLAND. Our second panel of witnesses today includes Mr. Ronald O'Rourke, specialist in naval affairs at the Congressional Research Service, and Mr. James Offutt, national president of the Navy League of the United States.

Mr. O'Rourke, you are recognized.

TESTIMONY OF RONALD O'ROURKE, SPECIALIST IN NAVAL AFFAIRS, CONGRESSIONAL RESEARCH SERVICE; AND JAMES H. OFFUTT, NATIONAL PRESIDENT, NAVY LEAGUE OF THE UNITED STATES

Mr. O'ROURKE. Mr. Chairman and distinguished members of the subcommittee, thank you for the opportunity to appear before you today to testify on Coast Guard acquisition. With your permission, I would like to submit my statement for the record, and summarize it here briefly.

As a starting point, it can be noted that the Coast Guard's program of record includes, by the Coast Guard's calculation, roughly 60 percent of the cutters and 50 percent of the aircraft that would be needed to fully perform the Coast Guard's statutory missions in coming years. In this sense, not completely fulfilling the program of record would deepen a capacity shortfall relative to projected future mission demands that is already built into Coast Guard plans.

Coast Guard testimony earlier this year suggests that the delay in submitting the fiscal year 2015 CIP was due largely to a disagreement between the Coast Guard and OMB about future funding levels in the AC&I account, with OMB apparently supporting a level of roughly $1 billion a year, and the Coast Guard apparently advocating a higher figure of perhaps $1.5 billion per year or more.

The difference between these two positions represents a major fork in the road for the Coast Guard. The previous Commandant, Admiral Papp, stated on multiple occasions that recapitalizing the Coast Guard's ship and aircraft fleets on a timely basis, while also adequately funding other AC&I programs, would require a funding level of $1.5 billion to $2 billion a year. A sustained funding level of about $1 billion per year, he testified last year, would almost create a death spiral for the Coast Guard.

The newly submitted CIP, which I received from the Coast Guard on Monday afternoon, averages about $1.1 billion a year, which is a bit more than the $1.0 billion per year in the fiscal year 2014 CIP, but still well below the $1.5 billion per year of the fiscal year 2013 CIP.

The new CIP includes the total of $230 million for a new polar icebreaker, most of which is in fiscal year 2017 and fiscal year 2019. The timing of the procurement of this ship has become less certain in this budget submission, and Coast Guard testimony earlier this year suggests that if the AC&I account remains at about $1 billion per year, the Coast Guard would view this ship as something like an unfunded requirement.

Regarding the NSC program, as the acquisition of these ships approaches its end, it can be noted that they could have been acquired less expensively if they had been awarded at a more even rate, and if at least some of them had been acquired with a form of multiyear contracting.

Regarding the FRC program, the phase 2 contract offers a potential opportunity for using multiyear procurement or a block-buy contract. A multiyear contract might result in acquisition costs that are lower than those possible under the options contract that the Coast Guard appears to be planning to use. One option for the subcommittee would be to understand the potential savings that might

be realized through multiyear contracting. The subcommittee, for example, could consider asking the Coast Guard or the Navy to develop an estimate of the potential savings.

Turning to the OPC program, the new CIP defers the bulk of the funding for the first OPC from fiscal year 2017 to fiscal year 2018, suggesting that the start of procurement for this program will be delayed a year, compared to last year's submission.

Section 215 of H.R. 4005, the Coast Guard and Maritime Transportation Act of 2014, provides authority for using multiyear procurement contracts in the program. Based on experience with Navy shipbuilding programs, this authority may not be usable until construction of the first OPC is completed in 2021 or 2022, because completion of the lead ship has been the standard in Navy shipbuilding programs for demonstrating that the program has a stable design, which is one of the requirements of the statute that governs multiyear procurement.

If Congress wants to employ multiyear contracting in the OPC program prior to completion of the lead ship in the program, it could do so by authorizing block-buy contracting. A block-buy contract could achieve much of the savings that would be possible in a multiyear procurement contract, particularly if it includes authority for making batch order purchases of long-leadtime components.

Mr. Chairman, this concludes my statement. Thank you again for the opportunity to testify, and I look forward to the subcommittee's questions.

Mr. SOUTHERLAND. Thank you, Mr. O'Rourke.

Mr. Offutt, you are now recognized.

Mr. OFFUTT. Thank you, Mr. Chairman, for the opportunity to appear before you today on such an important topic. I am grateful for your introduction and for your leadership in bringing this topic to the Nation's attention. My full testimony has been submitted for the record. I offer an abbreviated version now, and look forward to your questions.

The U.S. Coast Guard is truly a unique Service. With military and civil responsibilities and humanitarian missions, the extraordinary broad mission portfolio continues to serve the United States well. But we, as a Nation, have not treated the Coast Guard as well as we should have.

Since 9/11, the Coast Guard has seen its area of responsibility grow to 11 statutory missions, but its budget growth has de-accelerated, failing to match mission demand or meet inflation adjustment. We must fund the Coast Guard properly, with an operating budget of no less than $6.8 billion, and an acquisition, or AC&I budget, in excess of $2 billion, so that the Service can continue to provide protection on the seas from threats delivered by sea, and of the sea itself.

I believe that this is a generational opportunity, and that the recapitalization of the Coast Guard is absolutely essential. Completing the National Security Cutters in the approved program of record is, in my opinion, the Coast Guard's most critical acquisition goal. As the replacement vessel for the current fleet of 12 High Endurance Cutters, the NSC will provide a highly capable vessel, and

a robust command and control platform, even in harsh operating conditions.

However, at the rate the new cutters are coming online and older ships are being decommissioned, there will be an unavoidable gap that will pose significant risk to America's security. Some of that gap in the coastal areas will be met by Fast Response Cutters, or FRCs, that are currently being constructed. The President's request for production funding to conduct two more FRCs in fiscal year 2015 is the minimum necessary to improve the Coast Guard's waning operational, and we at Navy League believe that the actual number should be four per year, or one per quarter.

Highly important for the Coast Guard's operations is to begin construction of the Offshore Patrol Cutter, which will replace the MECs, or Medium Endurance Cutters, built in the 1960s through the 1980s. While the OPC is less capable than the MEC, it will still function as an operational workhorse to carry out the Coast Guard's primary mission.

The Coast Guard must move forward smartly with reviewing the preliminary design for the OPC and very soon begin construction. Given the magnitude of the attending capability gap, and the significant economies of scale to be realized, Navy League believes Congress should fund the construction of at least two OPCs annually.

Aviation assets are also key to the Coast Guard's future. One of the more pressing aviation projects is the acquisition of HC–130J Long Range Surveillance Aircraft, and the HC–144A receives operation and maintenance funding in fiscal year 2015. Coast Guard received authority to accept 14 C–27Js from the Air Force. Coast Guard needs acquisition construction and improvement funding of at least $15 million to continue that acquisition program office.

Finally, in looking at the future scope of the Coast Guard's areas of responsibility, one geographic area of operation is the Arctic. In recent years, as ice over the Arctic gap has diminished and rich new sources of energy are believed to be more likely, the Coast Guard must ensure continued capability in the Arctic icebreaking.

Currently, operating with one operational heavy icebreaker and one medium icebreaker, the Coast Guard must initiate a heavy icebreaker acquisition now, if a new capability is to be brought online this decade. This necessary acquisition must be seen as a national priority, and it must be funded in addition to the Coast Guard's already meager acquisition budget.

Recently commissioned assets will also require operational maintenance funding of at least $72 million.

As with all mobile forces, presence is the key. The only limiting factor to how much our Coast Guard can accomplish is how many ships and aircraft they have, and how much training they receive. We have had the chance to notice a direct correlation, through the budget reduction of recent years. Coast Guard, after having a $200 million cut by sequestration, saw a 30-percent reduction in drug interdiction. And I believe the vice admiral referred to that with the presence of one ship making a difference in the Caribbean.

If the Coast Guard remains unfunded, national leaders will have to decide what missions they want unfulfilled. Coast Guard cannot do more with less into perpetuity. As fast-paced operations con-

tinue, the Coast Guard must be effective not only through near-flawless mission, but also efficiently manage its existing assets.

In my role of national president of Navy League, I am privileged to visit several different ships, particularly a 110-foot patrol boat commanded by a young lieutenant and a Coast Guard station headed by a senior enlisted petty officer. I am thoroughly convinced that these young men are well prepared to carry out our mission. Their dedication and sense of service and devotion to this country inspire and awe me. To carry out their missions it is our job to ensure they have the means to do so.

The Navy League would like to thank this committee for its leadership and thank Congress for being supportive of the Coast Guard and ensuring they have the resources they need. We must be good shipmates to them, as they have every American. Thank you, and I await your questions.

Mr. HUNTER. Thank you very much for both of your testimonies. We will turn now to Member questions. And I would like to recognize the gentlelady from California.

Ms. HAHN. Thank you. I am sorry I missed the first panel. I was speaking on the floor on an issue, but I certainly want to thank you all for being here today, and big—I am a big supporter of our Coast Guard, and am always troubled by, frankly, the funding levels that we give to our Coast Guard for your—for the missions that we expect from the Coast Guard.

Very happy to report that I was just in Los Angeles a couple weeks ago when we had a change of command, and the first-ever woman will be the commanding officer and the captain of the port for Long Beach and Los Angeles. That was actually a very exciting moment. We are taking over the world one port at a time.

[Laughter.]

Ms. HAHN. But in your testimony you noted that the Coast Guard may view the polar icebreaker as a joint agency goal, as the National Science Foundation and Department of Defense share a need and desire to have the icebreaker available. We don't relate to having icebreakers out on the west coast, but do know that it is a big part of what you do.

And you mentioned that the Coast Guard may even depend on resources of those agencies to support the cost of an icebreaker. In the budget of these agencies, is there a capability to support even a portion of the cost of making an icebreaker a reality?

Mr. O'ROURKE. Yes, I did address that point in my testimony. The Coast Guard, both in its testimony at hearings and in its budget justification documents, describes the polar icebreaker as something they would like to fund on an interagency basis.

Ms. HAHN. Right.

Mr. O'ROURKE. The rationale being that other agencies, such as the National Science Foundation or DOD, gain significant direct benefits from the operation of these icebreakers.

There is some precedent for funding a polar icebreaker somewhere else in the Federal budget outside the Coast Guard's budget. The Coast Guard's polar icebreaker *Healy* was funded in the Navy shipbuilding account in fiscal year 1990. Even so, this is an uncertain funding strategy for the polar icebreaker, because these other

agencies are facing their own challenges right now in trying to meet their own program needs within available resources.

So, the Coast Guard can certainly appeal to these other agencies. Whether these other agencies are going to find the spare wherewithal within their own budgets to help fund that ship I think is another question.

Ms. HAHN. OK, thank you. Thank you.

Oh, you don't look like Steve Southerland at all.

Mr. HUNTER [presiding]. Botox and exercise.

[Laughter.]

Ms. HAHN. Really?

Mr. HUNTER. It is amazing.

Ms. HAHN. Look away for a moment, and the Republicans have changed.

Mr. HUNTER. Excuse me. Good morning, gentlemen. I guess my first question is this. I was thinking—were you here in the last panel?

Mr. O'ROURKE. Yes.

Mr. HUNTER. So I guess we always get after the military for not giving a nonbudget risk assessment. I mean you want a risk assessment based on how the world is, not what we can afford, right? And as I was walking back and forth in between my other hearing and this, I realized I was asking the Coast Guard to give us a—I guess not a—I wasn't asking for a risk assessment, but a Mission Needs Statement that is based on the budgetary environment.

So, I don't want to get those two confused. We still want a unbiased risk assessment from the Coast Guard that just says, "If we had trillions of dollars every year, here is how you mitigate 100 percent of the risk, and it is going to cost you $1 trillion a year." That is what we want from the military, too, and then it is up to us to make those decisions.

So, I guess our question is more about prioritization and how they come to their risk-based assessment. So I guess my question, Mr. O'Rourke, for you, is if they don't get more assets, and they don't get more money, how do you evaluate their mission set, just in general?

Mr. O'ROURKE. I think the answer is that we will continue to do what we have been doing for years and years, which is not completely fulfilling any number of these missions.

What you wanted was a fiscally constrained understanding of missions—that would be the term that I would use for it—and I think one way for the subcommittee to go about getting that would simply be to review the records of what the Coast Guard has done in recent years concerning mission performance across the 11 statutory missions. The Coast Guard has been making choices, as the admiral indicated, about which things to do and not do on a daily basis. That establishes a pattern, a record, that the subcommittee can examine to see what is being done and what is not being done. I think the evidence is there already, it just needs to be compiled and presented to the subcommittee.

Mr. HUNTER. And the admiral was talking about multiyear procurement.

Mr. O'ROURKE. Well, I was.

Mr. HUNTER. You were, but he mentioned that, too.

Mr. O'ROURKE. Oh, OK.

Mr. HUNTER. He said take it out of his stable funding source and know what they are getting a few years out—do that. What is the impediment to doing that? Is it how it scores?

Mr. O'ROURKE. The Coast Guard has statutory authority to use multiyear procurement in pretty much the same way that the Department of Defense does. The Coast Guard is mentioned in the same statute that grants the authority to DOD. So I don't see any statutory impediment to the Coast Guard using multiyear procurement authority.

Congress also has the ability on its own to authorize block-buy contracting authority for the Coast Guard, if it so desires. There is no statute that governs it. Congress can simply do it on its own.

It seems to me that if there is an impediment to the Coast Guard doing it, it has been simple lack of familiarity with these contracting mechanisms, and no prior history of having done it. But I do think the Coast Guard is beginning to become more familiar and more comfortable with it, and that is one reason why I am emphasizing it as an option for Congress to consider.

The Navy makes extensive use of these authorities, and has been successful, as a result, in being able to buy more ships for a given amount of money than would have been possible under more conventional contracting strategies.

Mr. HUNTER. So how much could they save? Just—let's say that they used it for their OPCs and the FRCs. If they just used it for those big buys, let's just say——

Mr. O'ROURKE. For the ships that are under that contract, it can save upwards of 10 percent. So if you have a 25-ship OPC program, we are talking about getting two of those ships, basically, for free.

Mr. HUNTER. Got you.

Mr. O'ROURKE. If you were to apply it across the entire program. And you could do it across the entire program by starting with a block-buy contract for the first few ships, and then proceeding to a multiyear procurement contract once the program met all the statutory requirements for MYP.

Mr. HUNTER. Thank you. Mr. Offutt?

Mr. OFFUTT. Sir, I would like to emphasize that I believe that a Mission Needs Statement with a full-blown understanding of what the Coast Guard is being asked to do by the American people through the Congress and through the administration is essential. Then you——

Mr. HUNTER. But they have that now. They already have that.

Mr. OFFUTT. And they are going to develop a new one.

Mr. HUNTER. Right.

Mr. OFFUTT. So I would not ask you to tell them to physically constrain that MNS, the MNS. I would ask that, as Mr. O'Rourke suggested, that they do an assessment of the risk involved in that. And, quite frankly, looking at their history, it is probably a very statistically valid way of figuring out what it is they can't do and can do.

But I believe that we need that——

Mr. HUNTER. I guess what we are asking for from them is——

Mr. OFFUTT [continuing]. Last for 10 years.

Mr. HUNTER [continuing]. A QDR.

Mr. OFFUTT. I believe that we need that.

Mr. HUNTER. We are asking for a QDR from the Coast Guard. That is kind of what—a risk assessment-based, what do you see happening in the next 5 years, what are your threats, how are you going to counter them. I guess that is what we are asking for.

Mr. OFFUTT. Well, we still have DOD strategic guidance and other documents that are similar to the Mission Needs Statement. And I agree with you, what you are asking for is a physically constrained what-can-I-do type of document.

Again, you know, they are working on the Mission Needs Statement, and it will just take them a little bit longer to dig through that other process, too. But I am sure they can provide it for you. Can't speak for the Coast Guard——

Mr. HUNTER. I guess how do you separate out—I guess the question is, too, how do you separate out their Capital Investment Plan and the shortage of money and how those assets tie in to fulfilling their mission needs set. I guess that is the big crux of this, right? Because we have their Mission Needs Statement. We know that they don't have enough money to build and buy all the assets that they need in the time that they need them in.

So—and I understand the game in DC, too, is to always be short, and then you can always say, "Well, we are short, we need more." But at some point you have to ask for what you can get, and then only say that you are going to build what you have the money for, which they are not doing right now. They are saying, "We want to build this. And, by the way, we are going to set in stone our plan to build this much stuff, but we only have this much money. And we understand that that is always going to be that way, so we are always going to be—there is always going to be a delta of what we plan for and what we can actually do." That leads for bad planning.

When you are talking about building ships, not necessarily what the American people through Congress have asked them to do, their mission set, but the actual building of ships, has to tie in with how much money they get at some point. And it is not right now. So how do you fix that?

Mr. O'ROURKE. I will give you an option for the subcommittee to consider, and it goes back to the testimony that the first panel gave about putting together a 20-year plan. If something like that were to be done, I think the committee could give consideration to asking the Coast Guard to doing three different versions of it, a version at $1 billion per year in the AC&I account, another at $1.5 billion per year, and other at $2 billion per year. That way, we can see what the resulting force structure is over time, and what the impact on the performance of various missions is.

We seem to be, right now, in my view, in the midst of a debate about this fork in the road, about the future of the Coast Guard, about whether we are going to have a Coast Guard of a certain size and capability and capacity, or a Coast Guard of a different size and capability and capacity. And I would not want a 20-year plan to, in effect, short-circuit the debate as to what that funding level should be, by presenting only one scenario because, if you were to do that, it could limit people's sense of options and possibilities, and it also doesn't provide them with any understanding of how

these things might change if you were to depart from that one funding level, either upward or downward.

So, one way to get around that would be to ask the Coast Guard, if they were to put together a 20-year plan showing how things would be bought, what the resulting force structure is, and what the consequent mission performance is, to do three versions of that: one at $1 billion a year, another at $1.5 billion, and another at $2 billion, because these seem to be the numbers that are at play in the current debate over the AC&I account. And that way we could all walk into this situation with our eyes open about what we are paying for, what we are getting, and what the mission impact, consequently, will be.

Mr. HUNTER. Great, we will do it. That is a great idea.

What do you think—you know what the 11 statutory missions are of the Coast Guard?

Mr. O'ROURKE. I don't have them listed here.

Mr. HUNTER. But as you have gone through them, what do you think about those in general? Do you think they are too broad? Think they are too narrow? There ought to be 20?

Mr. O'ROURKE. The missions, as stated, are stated broadly enough that they can be defined to result in a demand for mission assets that can be somewhat variable. Now, does that mean that we should try and narrow down the language on the performance of those missions? That might not be so easy.

But there is some leeway in the way the missions are stated right now for someone of good faith, looking at that language, to define it one way, and someone else of equally good faith to look at that mission and define it in a different way and say, "Well, no, I think it means performing it to a different level."

Mr. HUNTER. When you look at it right now, for instance, you have—the Coast Guard pulled, I think, how many of their ships from SOUTHCOM? Remember how many ships they pulled? Three? They pulled three ships from SOUTHCOM.

So when the Coast Guard comes in and they talk about—the best statement they always have is, "We can catch more or interdict more drugs in 1 year than the entire law enforcement presence of the interior of the United States catches," meaning they can get 10 times as much. It is already at 60 percent with the one at sea hauling in, I don't know, six or seven catches, right?

So, the question is, then, you have their Mission Needs Statement, you have what they always come in and talk about, which is giant drug busts and SOUTHCOM, yet that is where they pull their assets out of first when there is a problem.

So I guess my question would, from your analysis, if you have looked at this, do they need to pull—did they need to pull those assets from SOUTHCOM?

Mr. O'ROURKE. Well, they don't have——

Mr. HUNTER. Were there areas where they could have reduced risk and kept those assets working the drug interdiction cases?

Mr. O'ROURKE. Could they have deployed more assets into the drug mission?

Mr. HUNTER. Yes.

Mr. O'ROURKE. To some degree, yes, I think so. Other missions would have suffered. I mean it is a rob Peter to pay Paul situation at this point.

Several of the missions are not going fulfilled fully right now. The degree to which they are not being fulfilled varies. The protection of fisheries, particularly in certain parts of the western Pacific, is going not very much fulfilled, would be one way of putting it. And so we are not protecting our own waters and our own marine resources out there right now. So that would be another one.

I don't think that the mathematics of this are that complicated. If you do more in one mission, you are going to have less available for doing other missions, particularly if those other missions are geographically separated from the one that you are putting more assets into.

Mr. HUNTER. That is rough.

Mr. OFFUTT. Couldn't say it better.

Mr. HUNTER. OK. Ms. Hahn, do you have any more questions?

Ms. HAHN. Yes, thank you, Mr. Chairman. You know, again, I know it is unfortunate that we have these funding levels. And to be prepared. Because I think, a lot of times, we are unable to foresee some of the threats to our Nation's homeland that we are depending on the Coast Guard to counteract. I don't think we, on the west coast, really prepared for the panga boats, and when I think about Terrell Horne, who lost his life one night off the coast of California going against these panga boats.

So I think there is a lot that it would be nice to match funding with, you know, what we need, and try to do a better job, but I think there is a lot of threats that we are not really quite sure of, but when they happen we expect the Coast Guard to defend us against that.

One of the things I was thinking about is the Coast Guard was unable to classify any of their activities as nonessential. And what we are talking about today, with a lack of funding, you know, maybe we have to do a better job of prioritizing. And just didn't know if either one of you saw any of the responsibilities within the Coast Guard Mission Needs Statement as nonessential, or if not nonessential, a lower priority.

Mr. O'ROURKE. If you can trace things in the Mission Needs Statement back to the 11 statutory missions, those 11 missions are a statement from Congress as to what is essential. And so, if you can provide a strong link translating from the 11 statutory missions to what you have in the Mission Needs Statement, then what it does is it brings it back to Congress to consider what the statutory missions might be.

And rather than trying to tighten up the language, which could prove to be very difficult, what you would want to get is a better understanding from the Coast Guard as to how they look at those 11 statutory missions, and translate them into narratives of what they think needs to be done. And then the Congress can decide whether they agree or disagree with that translation process.

Mr. OFFUTT. I have a slightly different point of view, and that is you have these 11 statutory missions, and you have raised and trained a Coast Guard that is highly qualified. By the time you reach leadership position in the Coast Guard, you have spent well

over 20 years there. We have relied on their expertise and their training.

And so, I say that through the guidance the Congress gives—and, of course, they get a lot of guidance from the administration and from DHS—I believe, truly believe, that the professionals in the Coast Guard understand what all of their requirements are, and that they are able to prioritize those requirements, based on the assets they have, based on their training, understanding, and personal experience.

So, I am, again, very satisfied with what I see as the performance of the Coast Guard, not only at the senior leadership, but—what amazes me is the youngsters we see out there doing a job. We see JGs commanding ships. I saw a JG who was the only female on a ship as the XO of a 110 commanded by a lieutenant. And they were spending 24/7 at sea in the Mediterranean, doing their missions. And they understood their missions, and they went after them all the time.

So I think that what we end up relying on is the personal ability and training and experience of our professional Coast Guard, both military and civilians, to actually sort through all of these missions and figure out which ones they can do and which ones are the most important.

And it is just—quite frankly, in most Government agencies today, in the environment we are in, that is what is happening, you know. Our experienced folks in those agencies—it certainly is happening in DOD. We certainly see, you know, a prioritization of missions in all of the other four armed services. And then the Coast Guard, as well. I think we need to rely on our professionals.

Ms. HAHN. And I don't know if either of you have a comment on this, but you know, after 9/11 Congress passed H.R. 1, I think, which was 100 percent scanning of containers coming into our ports. We are not even close to that. We are at about 2 or 3 percent. We have this layered approach, trying to be more strategic. That is what still keeps me up at night, is what will come through our ports and create a disaster.

But how much more is the Coast Guard expending in resources to participate in this layered approach, assess containers at risk, than if we actually were scanning these containers, so we actually knew what was in them? Would that be—is—I mean they are always talking about how it is too expensive, and other reasons why we can't scan containers. I disagree with all that, and I always want to go on the record saying I think our ports are still our most vulnerable entryway into this country. But what if we actually were scanning?

And, by the way, the technology exists today to scan these containers in a way that would not slow commerce. And would that in some way relieve the Coast Guard of tremendous resources in trying to participate in this layered approach to security?

Mr. OFFUTT. Well, I agree with you——

Ms. HAHN. A question.

Mr. OFFUTT. I agree with you that it is a risk. However, I think that the feeling of certainty for what is in a container involves more than just scanning it, because we actually—when you go back to port of origin, we actually have bills of lading and everything,

so we know that they are there. I have found Coast Guard in my travels around the world to visit my Navy League Councils, I have found Coast Guard folks in the funniest places, and a lot of them are there primarily because that is a container shipping port.

Qatar is a good example. There were some Coast Guards there, and that is their primary job, was to look at bills of lading, and understand what was coming to the United States, and how that operates.

So, the question is, you know, I think they are doing that mission to the extent they can. And could we do the mission better? Could we apply more technology? Could we scan things better? I agree with you. But I think it is being done to the extent that the professionals believe is necessary to ensure some sort of high percentage of reliability.

Ms. HAHN. So you don't think it would change if we began scanning 100 percent of our containers. You still think that it is an important, particularly at the port of origin, to——

Mr. OFFUTT. Yes, I do.

Ms. HAHN [continuing]. Look at the manifest——

Mr. OFFUTT. I believe you could scan, but I believe that the port of origin and invoicing, or bill of lading process, is just as important as the scan.

Ms. HAHN. It is a big, wide ocean.

Mr. OFFUTT. Yes.

Ms. HAHN. And a lot can happen——

Mr. OFFUTT. A lot can happen.

Ms. HAHN [continuing]. Between the port of—the point of origin and when it lands at one of our U.S. ports. That is all I am going to——

Mr. OFFUTT. So you are familiar with AIS, though, the tracking of ships at sea? So, I mean, that is another part of the verification process.

Yes, Mr. Chairman?

Mr. HUNTER. Plus CBP, not the Coast Guard, does most of the scanning. Customs and Border Protection.

Mr. OFFUTT. Right, Custom and the border patrols out there.

Mr. HUNTER. Not the Coast Guard.

Ms. HAHN. True, but I do think their resources are changed a little bit with their—you know, they now board the ships when they come into port.

I just wonder if we are using their resources now in a way that we wouldn't have to——

Mr. HUNTER. I agree.

Ms. HAHN [continuing]. If they were actually scanned.

Mr. HUNTER. It only takes one, anyway, correct? Yes. You know, I would agree with you if I think that every single person in every military service could be trusted to use their best professional opinion and their personality to ensure the job getting done.

What you are admitting is there is a bad system. You said—so basically you are saying there is systemic problems, and we rely right now upon the personality and direct intervention of those professionals with experience to determine the best course of action.

That is a recipe for disaster, because all you need is one bad player who doesn't have the right experience, or takes a wrong

turn, and the system then is—since it is broken, and you are relying on one personality, you get one bad personality, and it all goes to hell. That is a problem with relying on just people making—with their best intentions, trying to make decisions that are not based on analytics of the system.

Mr. OFFUTT. Well, I would not like to characterize it as one person. We have team approaches, we have technology to assist us, we have interagency, we have lots of backups to that one person. And when you see the decision process, which you are familiar—I mean, you know, the way the joint chiefs—the way the Coast Guard—the way it starts right from the top of the military and works its way down is a team approach. I wouldn't characterize it as one person's decision as to—for that kind of large error——

Mr. HUNTER. Well, let's take this, for example.

Mr. OFFUTT. OK.

Mr. HUNTER. Let's take the President just extended in the Pacific the marine sanctuary area that is, like, 50 miles out from different islands. He said he is going to quadruple it. OK? The only way you keep people from fishing in a marine sanctuary is Coast Guard patrols. That is the only way.

So, while the President cuts the Coast Guard's budget, their mission needs requirements and statements remain the same. He gives them a four times the area to patrol, while still not having enough assets in the—in SOUTHCOM's AO to interdict drugs. That doesn't seem like a very cohesive system from the top down. So he has given the Coast Guard four times more to patrol, while they have fewer assets, less money, and are pulling assets from SOUTHCOM. Sounds like they got the wrong personality in there somewhere.

Mr. OFFUTT. No, somebody has to make a decision as to how—what is the—or how often——

Mr. HUNTER. Well, the President did. He said it is going to be four times, and you have to——

Mr. OFFUTT. Well, no, I am talking about now. So they are given——

Mr. HUNTER. You are talking tactics now?

Mr. OFFUTT. No—yes, I am talking tactics now.

Mr. HUNTER. So, like, Lieutenant JG——

Mr. OFFUTT. But that is not my expertise. But then there is the tactics of how soon or how often do we make a patrol through that increased area just to show presence.

Mr. HUNTER. Well, sure.

Mr. OFFUTT. So, I mean, so that is not——

Mr. HUNTER. Well, if the Coast Guard just had——

Mr. OFFUTT. I leave that up to professionals.

Mr. HUNTER. If the Coast Guard just had one ship, I guess a professional could say, "This one ship is going to be present at any one place throughout the year."

But what I am saying is you got to have a system in place so that it is not all based on professionals and personality.

Mr. OFFUTT. And I believe it is.

Mr. HUNTER. General Mattis called that Handshake Con.

Mr. OFFUTT. Right.

Mr. HUNTER. Handshake Control, which works well——

Mr. OFFUTT. No, I agree. That is what is in place.

Mr. HUNTER [continuing]. Until you got bad hand-shakers.

Mr. OFFUTT. Right.

Mr. HUNTER. And then it stops working.

Any closing statements?

Mr. OFFUTT. No. I just want to thank you, Mr. Chairman. And it has been my privilege to brief two generations of distinguished——

Mr. HUNTER. Of Hunters?

Mr. OFFUTT [continuing]. Chairmans. So——

Mr. HUNTER. He was a real chairman; I am a little chairman.

[Laughter.]

Mr. HUNTER. But thank you. And, with that, the hearing is adjourned.

[Whereupon, at 11:02 a.m., the subcommittee was adjourned.]

Rep. John Garamendi
Opening Statement
House Subcommittee on Coast Guard and Maritime Transportation Hearing

"Maintaining Coast Guard Readiness"

June 18, 2014

Good Morning, Mr. Chairman. I will keep my remarks brief as I am anxious to begin our annual hearing to assess the Coast Guard's ongoing progress to recapitalize its aging fleets of offshore cutters, aircraft and communication technologies.

There is little doubt that the Coast Guard has done an admirable job since 2008 when it assumed full control of the largest recapitalization program in the Service's history. Nonetheless, problems are evident and our oversight is necessary.

For example, certain acquisition programs have been prematurely terminated while the timetables for other programs have been pushed further out into the future, such as the Offshore Patrol Cutter – the single largest acquisition in the entire recapitalization program.

Moreover, the Coast Guard now faces an imminent gap in operational capability as its aging legacy assets are pressed far beyond their service life expectancies. And even for some new assets that have been provided for the Coast Guard, such as the 14 C27J aircraft transferred from the Air Force, little is known about the costs to bring these new assets on line and when they will be available.

The stark reality is that our current era of budget austerity is compounding the challenges faced by the Coast Guard in delivering this massive recapitalization program. This is a most regrettable circumstance and sadly illustrative of the type of unintended consequences we create when we adopt budgets and pass appropriations bills that are "penny wise but pound foolish."

At the end of the day, despite the compelling need; despite the ill-advised delays that will result from insufficient funding; and most important, despite the fact that the Coast Guard's readiness and capabilities will suffer, future austerity budgets will make it a virtual certainty that the Coast Guard will be unable to complete the approved program of record within estimated costs and timetables.

Consequently, if the Coast Guard is going to be faced with this situation, we would be well-advised to do everything we can now to ensure that the assets the Coast Guard is building can in fact deliver the capabilities for which they have been designed. Anything less will result in a Coast Guard that is but a hollow shell of the proud institution that has served our nation so well for over 200 years. Thank you.

U. S. Department of Homeland Security

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TESTIMONY OF
VICE ADMIRAL CHARLES D. MICHEL
DEPUTY COMMANDANT FOR OPERATIONS

ON

"MAINTAINING COAST GUARD READINESS"

BEFORE THE
HOUSE COAST GUARD AND MARITIME TRANSPORTATION SUBCOMMITTEE

JUNE 18, 2014

Introduction

Good morning Chairman Hunter, Ranking Member Garamendi and distinguished members of the Subcommittee. I am honored to appear before you today, to discuss Coast Guard readiness and our continued efforts to best serve the American people today and into the future.

The United States continues to face a dynamic and complex array of maritime hazards to people, cargo, conveyances and the environment, requiring vigilance to sustain effective maritime governance. Our vigilance is bolstered by a unified effort across government and close collaboration with the private sector. We remain focused on the Department of Homeland Security's (DHS) enduring missions of: Preventing terrorism and enhancing security; Securing and managing our borders; Enforcing and administering our immigration laws; Safeguarding and securing cyberspace; and Ensuring resilience to disasters. The Coast Guard is fully committed to these priorities.

To address today's greatest maritime safety, security and environmental protection needs and ensure future readiness, the Coast Guard must leverage the inherent advantages of our integrated, layered Prevention and Response strategy, strengthen partnerships to achieve unity of effort and ensure our people are properly trained and equipped. We must also ensure sound fiscal and risk management underpins our planning and operations, as well as our critical asset recapitalization and sustainment programs. To that end, the Coast Guard is committed to working with DHS, the Administration and Congress to ensure we remain ready for the challenges ahead.

Ensuring Maritime Safety, Security and Environmental Stewardship

The Coast Guard plays a vital role in the DHS's layered, multi-faceted approach to maritime security. Our complementary and extensive suite of authorities enables the Coast Guard to govern U.S. maritime interests through regulation, monitoring and enforcement operations to ensure the safety, security and stewardship of our nation's waters. We employ a risk-based strategy that makes the best use of our available resources to mitigate and respond to myriad threats in the maritime environment.

This strategy relies on a regime of integrated, layered prevention and response operations that leverages our authorities as an armed service, federal law enforcement agency and a member of the intelligence community. This strategic approach helps the Coast Guard balance the execution of our statutory missions and responsibilities to focus on our nation's highest risks in the maritime domain.

Partnerships complement the Prevent-Respond concept of operations. The Coast Guard leverages our network of joint service, international, federal, state, local, tribal and territorial partnerships to improve unity of effort and strengthen maritime governance. This is particularly apparent in our close work with other DHS components as we seek to unify effort in meeting our shared homeland security missions. This is also apparent in our work with other nations. This international cooperation is a critical component to our layered approach, serving as a force multiplier and enabling the Coast Guard to address maritime threats as far from U.S. shores as possible. For example, the Coast Guard maintains 30 maritime counterdrug bilateral agreements and operating procedures to stem the flow of illicit drugs in the Western Hemisphere. In a recent case, a Coast Guard Law Enforcement Detachment Team conducted a joint boarding of a self-propelled semi-submersible with the Colombian Navy, resulting in the interdiction of 5,243 pounds of cocaine.

The Coast Guard implements the Prevent-Respond strategic concept in an integrated manner throughout U.S. waters, across the high seas to the waters and ports of partner nations. In the near-shore and coastal waters, the benefits of this strategy are evident in our system of Coast Guard Sectors that leverage extensive authorities, partnerships and capabilities to ensure our safety, security and economic prosperity. For example, Coast Guard Sector Commanders have Captain of the Port authority to enforce port safety, security and marine environmental protection regulations; Officer-in-Charge of Marine Inspection authority for regulation of commercial ships and mariners; Federal On-Scene Coordinator authority over oil and hazardous material spill response; Search and Rescue Mission Coordinator authority over search and rescue operations; and Federal Maritime Security Coordinator authority to coordinate Area Maritime Security Committees.

The Coast Guard's layered security and response strategy optimally positions Coast Guard shore-based, maritime patrol and deployable specialized forces in the offshore and high seas, coastal, and inland maritime environments. This strategy helps the Coast Guard interdict or prevent threats early before they reach our shores and improves our ability to respond to contingency or surge operations. Although we have an important international footprint, this strategy focuses the majority of our forces in the Western Hemisphere. This focus is by design, given the shift of resources to other regions by other agencies such as the Department of Defense, as well as the challenges related to climate change, particularly in the arctic region.

The strategy of prevention, response, partnership and integrated, layered operations helps Coast Guard men and women effectively operate capable Coast Guard assets to govern the U.S. maritime domain and reduce risk. This strategy has proven successful in our daily operations and during major contingency operations such as Hurricane Sandy, the 2010 Deepwater Horizon Oil Spill and the Haiti earthquake response. To ensure future success we must maintain a properly equipped and trained Coast Guard.

Supporting Mission Readiness through Recapitalization

In order to sustain mission performance and to effectively secure, safeguard, and provide stewardship of the maritime domain on behalf of the American people, the Coast Guard is committed to responsibly recapitalizing the fleet while preserving our most critical front-line operations. This balanced strategy is essential to maintain mission readiness in the near-term as well as to prepare for mission execution in the future.

As you are aware, the Coast Guard is conducting numerous major acquisition projects to deliver new cutters, boats, aircraft, and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems to replace our legacy fleet of cutters, boats and aircraft. Recapitalization is critical to sustain mission performance and to provide the expected service to our nation into the decades ahead. Through the support of the Administration and Congress, the Coast Guard is making important strides toward recapitalizing air and surface capability and capacity essential to safeguarding U.S. security and prosperity.

New assets are improving the Coast Guard's ability to operate in the offshore, coastal and inland domains with improved response time, coverage, reliability, effectiveness and safety. We are delivering National Security Cutters (NSC), Fast Response Cutters (FRC), Response Boats-Medium (RB-M), Response Boats-Small II (RB-S II), cutter boats, HC-144A Ocean Sentry Maritime Patrol Aircraft (HC-144A), HC-130J Long Range Surveillance Aircraft (HC-130J) and command and control systems as well as recapitalized legacy patrol boats, medium endurance cutters and helicopters to the field – equipping our men and women with enhanced tools to execute the Coast Guard's many missions. In the coming months, we will begin accepting C-27J aircraft from the Air Force to be missionized for operational use, complementing the existing fixed wing aircraft fleet.

However, significant work remains in our recapitalization efforts, specifically with the acquisition of the Offshore Patrol Cutter (OPC). The OPC is planned to replace the Medium Endurance Cutters as Coast Guard's offshore cutter with capabilities between the NSC and the FRC classes.

The OPC acquisition strategy is designed to maximize affordability, building on acquisition best practices and lessons learned from previous Coast Guard acquisition projects. The Coast Guard is aggressively engaging industry throughout the requirements development process to understand the state of the market and to identify and reduce program costs. The two-phase contracting strategy is critical to sustaining robust competition while designs are developed and matured, enabling the final source selection decision to be made based on affordability – pricing of ship construction costs will be known before a down select decision is made to one contractor.

Through the hard work of our OPC program management, contracting and technical support staffs, awards for preliminary and contract design were made to three contractors in February. Work was stayed on these contracts, in accordance with regulations, when two shipyards filed a protest on the bid award with the Government Accountability Office (GAO). GAO upheld the Coast Guard's award decision and work re-commenced on the Preliminary and Contract Design award on June 3, 2014.

Recent Acquisition Successes

Over the past year, the Coast Guard, with the strong support of Congress and particularly this Subcommittee, has achieved a number of significant accomplishments in our efforts to recapitalize the Coast Guard fleet and support systems. These will help provide the Service the capability and capacity to improve mission performance in the future.

Investment in the inland and coastal regions continues to improve our ability to meet mission performance objectives. Last month, the ninth FRC, USCGC KATHLEEN MOORE, was commissioned into service at Sector Key West. The Coast Guard will take acceptance of the tenth FRC, USCGC RAYMOND EVANS, this month, and we plan to exercise an option for six additional FRCs (hulls 25-30) this fiscal quarter. Consistent with the President's FY15 budget request, we are poised to order additional FRCs in fiscal year 2015 and are moving forward with our plan to provide interested shipyards with an opportunity to compete for a follow-on FRC construction contract through a draft Request for Proposal that was released last month.

We are also making investments into the offshore fleet and continue to build on the experience gained during the construction of the first three NSCs that control risk and achieve stability in cost and schedule. The fourth (USCGC HAMILTON), fifth (USCGC JAMES) and sixth (USCGC MUNRO) NSCs are currently in production, and we are quickly approaching the start of production for the seventh NSC (USCGC KIMBALL). The fiscal year 2015 budget request includes funding for the eighth NSC (USCGC MIDGETT), completing the full program of record for this cutter class. In the field, our three operational NSCs (USCGCs BERTHOLF, WAESCHE, and STRATTON) are providing Area Commanders with the capabilities to perform the full range of Coast Guard missions in the offshore environment. Later this year, we will mark the commissioning of the HAMILTON and its arrival as the first NSC to the East Coast with its new homeport at Charleston, S.C.

Following completion of Operational Test and Evaluation, the Coast Guard is receiving the lead production boats for both the 11-meter Long Range Interceptor II (LRI-II) and 7-meter Over the Horizon IV (OTH-IV) cutter boat classes and established the OTH-IV as the standardized cutter boat for the FRC class. The Service also continues to oversee the production of the RB-M and the RB-S II, currently being delivered to Coast Guard stations nationwide.

Additionally, the Coast Guard is conducting pre-acquisition activities to support the design and procurement of a new Polar Icebreaker to maintain Coast Guard mission capabilities in the high latitude regions. Discussions with numerous federal partners and the Administration have commenced to develop and assess requirements for the polar icebreaker.
In the aviation domain, we accepted delivery of two of three planned HC-144A Ocean Sentry Maritime Patrol Aircraft this year and are anticipating delivery of the first of 14 planned C-27Js obtained from the U.S. Air Force, thanks in large part to the efforts of this subcommittee. In preparation for the initial C-27J deliveries, we have established a C-27J Asset Project Office at the Aviation Logistics Center in Elizabeth City, N.C. The C-27J Asset Project Office will lead the development and standardization of procedures, technical manuals, training curricula and test and evaluation reporting prior to the aircraft entering the operational fleet.

Our helicopter sustainment and enhancement projects marked a milestone earlier this year with the delivery of the final MH-60T Jayhawk following completion of upgrades to the avionics systems and installation of enhanced electro-optical infrared (EOIR) sensor system capabilities.

Conversion of the legacy H-65 fleet continues at full-rate production levels with the replacement of obsolete components, resulting in the MH-65D configuration, and development of a Common Aviation Architecture System (CAAS) solution.

We continue to work with the U.S. Navy, U.S. Customs and Border Protection, and the DHS Science & Technology Directorate to leverage their existing programs to develop cutter- and land-based Unmanned Aerial Systems (UAS) to supplement manned aircraft to meet maritime surveillance requirements. Following the completion of a three-phased demonstration of small UAS, the Coast Guard recently conducted market research in support of a project to acquire small UAS capabilities for the National Security Cutter fleet.

The Service's enhanced command and control systems, such as Rescue 21, WatchKeeper, and the Nationwide Automatic Identification System continue to save lives and enhance maritime awareness in our ports and on the inland and coastal waterways. With Rescue 21 capabilities currently in place along the Atlantic, Pacific, and Gulf Coasts as well as the Great Lakes, Hawaii, and territories, we are developing targeted solutions to provide additional coverage of the Western Rivers and off the coast of Alaska. Earlier this year, the Coast Guard completed operational testing of the WatchKeeper system. This system, which coordinates and organizes port security information and provides access to a wide range of government and industry partners, was recently installed at the 35th of 37 planned locations last month with the remaining installations scheduled for this summer.

Our C4ISR systems remain critical for maintaining secure interoperability among our many resources and missions. Enhanced C4ISR equipment and software provide situational awareness, data processing and information awareness tools required to modernize and recapitalize our shore sites, surface and aviation assets.

Conclusion

For over 224 years, the Coast Guard has safeguarded our nation's maritime interests and natural resources on our rivers, in the ports, on the high seas, and in theaters around the world. Fundamentally, our missions have not changed but the threats to our nation are dynamic and shift, at any given time, in quantity, complexity and geography.

The Coast Guard will continue to balance front-line operations while investing in future capability to deliver the mission performance that the American taxpayer has come to expect to serve National interests in the decades ahead. Thank you for the opportunity to testify before you today and for all you do for the men and women of the U.S. Coast Guard. I look forward to answering your questions.

United States Government Accountability Office

Testimony

Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives

For Release on Delivery
Expected at 9:30 a.m. ET
Wednesday, June 18, 2014

COAST GUARD ACQUISITIONS

Better Information on Performance and Funding Needed to Address Shortfalls

Statement of Michele Mackin, Director
Acquisition and Sourcing Management

GAO-14-650T

Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee:

I am pleased to be here today to discuss the Coast Guard's plan to buy the assets it needs to meet current and future mission demands. We have been reviewing the Coast Guard's efforts to purchase a new fleet since 2001 and have repeatedly found that the Department of Homeland Security (DHS) and the Coast Guard recognize, but have yet to address, the continued unaffordability of the Coast Guard's portfolio given the funds needed to complete the fleet and the funds available each year. While the Coast Guard has made progress in more closely following acquisition best practices, such as taking steps to increase competition, it does not have a long term plan that balances its estimated needs and resources as it continues its 30-year recapitalization effort. Instead, the Coast Guard continues to pursue a set of acquisitions that is not affordable, leading it to repeatedly delay and reduce capability on an annual basis to address budget constraints. Simply put, it is unlikely that these short-term budget decisions will amount to a good long-term investment strategy.

In our report to this subcommittee that we are releasing today, we found, among other things, that DHS and Coast Guard guidance is unclear regarding when minimum performance standards should be achieved, that the Coast Guard did not plan to operationally test its Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) system, and that the Coast Guard does not have a long-term fleet modernization plan.[1] We made a number of recommendations to address these issues.

Today, I will (1) describe how selected assets are performing in the field as well as results from recent operational test events; (2) provide summary cost information on the Coast Guard's portfolio of acquisitions; and (3) discuss the extent to which the Coast Guard is experiencing capability gaps given known affordability issues. My testimony will summarize the findings and recommendations from our report.

[1]GAO, *Coast Guard Acquisitions: Better Information on Performance and Funding Needed to Address Shortfalls*, GAO-14-450 (Washington, D.C.: June 5, 2014).

To assess the operational performance of the Coast Guard assets, we selected all four major acquisition programs that were fielded between fiscal year 2007 and 2014 and that the Coast Guard planned to test—the Maritime Patrol Aircraft (HC-144), Fast Response Cutter, National Security Cutter, and the C4ISR system. For each asset, we reviewed post-deployment reports and test reports and interviewed officials responsible for the testing and operation of these assets. To assess the cost of the Coast Guard's portfolio and steps taken to address affordability concerns, we reviewed each asset's acquisition program baseline as well as the Coast Guard's budget and discussed the acquisition portfolio with Coast Guard, DHS, and Office of Management and Budget (OMB) officials and followed up on previous efforts to address affordability. We also reviewed the Coast Guard's Capital Investment Plan and compared it to relevant law that specifies the plan's contents. To assess what, if any, capability gaps exist given the Coast Guard's affordability issues, we reviewed funding needs, mission needs, future plans, and performance data and reviewed the Coast Guard's fiscal year 2014 and 2015 budgets. We also reviewed the Coast Guard's estimates of its overall fleet performance and current or potential performance gaps.

Our work was conducted in accordance with generally accepted government auditing standards. Our report provides further details on our scope and methodology.

Operators Extol New Assets' Performance Compared to Aging Counterparts, but These Assets Have Yet to Meet Key Requirements

Coast Guard operators and commanding officers told us that the National Security Cutter, Fast Response Cutter, and HC-144 are performing well during missions and are an improvement over the vessels and aircraft they are replacing. Operators primarily attribute the performance improvements to better endurance and communications capabilities, which help to position and keep these assets in high-threat areas. Specifically, these new assets have greater fuel capacity and efficiency, engine room and boat launch automation, handling/seakeeping, and food capacity, all of which increase endurance and effectiveness.[2] To date, the improved capabilities of the four newly fielded assets have led to mission-related successes, according to Coast Guard asset commanders.

[2]Seakeeping refers to a vessel's ability to withstand harsh sea states to conduct operations or survive. Sea states refer to the height, period, and character of waves on the surface of a large body of water.

In addition to performance in the field, each major acquisition is required to undergo operational testing by an independent test agency—in this case, the Navy's Commander of Operational Test and Evaluation Force. Operational testing is important, as it characterizes the performance of the asset in realistic conditions. During operational testing, the test agency determines whether the asset is operationally effective (whether or not an asset can meet its missions) and operationally suitable (whether or not the agency can support the asset to an acceptable standard). The Fast Response Cutter and the HC-144 completed initial operational testing in September 2013 and October 2012, respectively. Based on the results, neither asset met all key requirements during this testing. The Fast Response Cutter partially met one of six key requirements, while the HC-144 met or partially met four of seven key requirements. The Fast Response Cutter was found to be operationally effective (with the exception of its cutter boat) though not operationally suitable, and the HC-144 was found to be operationally effective and suitable.

It is important to recognize that this was the initial operational testing and that the Coast Guard has plans in place to address most of the major issues identified. For example, in order to address issues with the seaworthiness of the Fast Response Cutter's small boat, the Coast Guard will supply the Fast Response Cutter with a small boat developed for the National Security Cutter. However, DHS officials approved both assets to move into full rate production, and we found that guidance is not clear regarding when the minimum performance standards should be met—or what triggers the need for a program manager to submit a performance breach memorandum indicating that certain performance parameters were not demonstrated. The Coast Guard did not report that a breach had occurred for the HC-144 or the Fast Response Cutter, even though neither of these programs met certain key performance parameters during operational testing. Without clear acquisition guidance, it is difficult to determine when or by what measure an asset has breached its key performance parameters and, therefore, when DHS and certain congressional committees are to be notified. We recommended that DHS and the Coast Guard revise their acquisition guidance to specify when minimum performance standards should be met and clarify the performance data that should be used to determine whether a performance breach has occurred. DHS concurred with these recommendations and stated that it plans to make changes to its acquisition guidance by June 30, 2015.

By not fully validating the capabilities of the National Security Cutter until late in production, the Coast Guard may have to spend more to ensure

the ship meets requirements and is logistically supportable. The Coast Guard recently evaluated the National Security Cutter through operational testing, even though 7 of 8 National Security Cutters are under contract, but results are not expected until early fiscal year 2015.[3] Coast Guard program officials stated that, prior to the operational test, the National Security Cutter had demonstrated most of its key performance parameters through non-operational tests and assessments, but we found that a few performance requirements, such as those relating to the endurance of the vessel and its self-defense systems, have yet to be assessed. Further, several issues occurred prior to the start of operational testing that required retrofits or design changes to meet mission needs. The total cost to conduct some of these retrofits and design changes has not yet been determined, but the cost of major changes for all eight hulls identified to date has totaled approximately $140 million, which is about one-third of the production cost of a single National Security Cutter. The Coast Guard continues to carry significant risk by not fully validating the capabilities of the National Security Cutter until late in production, which could result in the Coast Guard having to spend even more money in the future, beyond the changes that have already been identified.

The Coast Guard has not yet evaluated the C4ISR system through operational testing even though the system has been fielded on nearly all new assets. Instead of evaluating that system's key performance parameters, Coast Guard officials decided to test the system in conjunction with other assets—such as the HC-144 and the Fast Response Cutter—to save money and avoid duplication. However, the C4ISR system was not specifically evaluated during the HC-144 and Fast Response Cutter tests because those assets' test plans did not fully incorporate testing the effectiveness and suitability of the C4ISR system. The Coast Guard now plans to test the key performance parameters for the next generation C4ISR system when follow on testing is conducted on the National Security Cutter; this testing has yet to be scheduled. By not testing the system, the Coast Guard has no assurance that it is purchasing a system that meets its operational needs. To address this issue, we recommended that the Coast Guard assess the C4ISR system by fully integrating this assessment into other assets' operational test plans or by testing the C4ISR program on its own. In response, the Coast Guard stated that it now plans to test the C4ISR system's key

[3] We plan to assess the results of the testing at the request of this subcommittee.

performance parameters during follow on testing for the National Security Cutter.

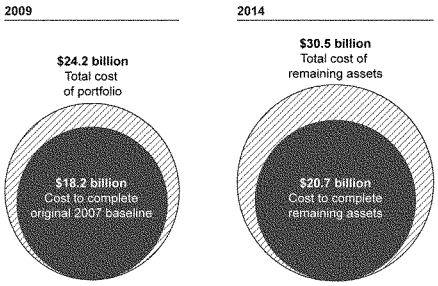
Program Cost Increases across the Portfolio Are Consuming Funding, While Affordability Issues Have Not Been Addressed or Accurately Represented

As the Coast Guard continues to refine cost estimates for its major acquisitions, the expected cost of its acquisition portfolio has grown.[4] There has been $11.3 billion in cost increases since 2007 across the eight programs that have consistently been part of the portfolio—the National Security Cutter, the Offshore Patrol Cutter, the Fast Response Cutter, the HC-144, the HC-130H/J, HH-65, C4ISR, and Unmanned Aircraft System.[5] These cost increases are consuming a large portion of funding. Consequently, the Coast Guard is farther from fielding its planned fleet today than it was in 2009, in terms of money needed to finish these programs. Senior Coast Guard acquisition officials told us that many of the cost increases are due to changes from preliminary estimates and that they expect to meet their current cost estimates. However, the Coast Guard has yet to construct the largest asset in the portfolio—the Offshore Patrol Cutter—and if the planned costs for this program increase, difficulties in executing the portfolio as planned will be further exacerbated. Figure 1 shows the total cost of the portfolio and cost to complete the major programs included in the Coast Guard's 2007 baseline in 2009 and 2014.

[4] The Coast Guard has 11 major acquisition programs in its current portfolio, based on the Fiscal Years 2014-2018 Capital Investment Plan. Of these 11 major acquisition programs, 8 were also a part of the 2007 recapitalization portfolio (formerly known as the Deepwater program). Over time, the composition of the portfolio has changed. For example, since our last review in 2012, the Coast Guard has added 3 programs to its acquisition portfolio and another 7 programs are ending and, therefore, will no longer need additional acquisition funding.

[5] The HC-130H and HC-130J are four engine turbo-prop aircraft that the Coast Guard has combined into one project called Long Range Surveillance (LRS) that will increase its capabilities.

Figure 1: The Total Cost of the Portfolio and Cost to Complete Programs in the Coast Guard's Original 2007 Baseline in 2009 and 2014



Source: GAO analysis of Coast Guard data. | GAO-14-650T

Note: In Current/Then-Year Dollars. This means that numbers have not been normalized for inflation.

Coast Guard, DHS, and OMB officials have acknowledged that the Coast Guard cannot afford to recapitalize and modernize its assets in accordance with the current plan at current funding levels. According to budget documents, Coast Guard acquisition funding levels have been about $1.5 billion for each of the past 5 years, and the President's budget requests $1.1 billion for fiscal year 2015. To date, efforts to address this affordability imbalance have yet to result in the significant trade-off decisions that would be needed to do so. We have previously recommended that DHS and the Coast Guard establish a process to make the trade-off decisions needed to balance the Coast Guard's resources and needs. While they agreed with the recommendation, they have yet to implement it.[6]

In the meantime, the extent of expected costs—and how the Coast Guard plans to address them through budget trade-off decisions—is not being

[6] GAO, *Coast Guard: Action Needed As Approved Deepwater Program Remains Unachievable*, GAO-11-743 (Washington, D.C.: July 28, 2011); and *Coast Guard: Portfolio Management Approach Needed to Improve Major Acquisition Outcomes*, GAO-12-918 (Washington, D.C.: Sept. 20, 2012).

clearly communicated to Congress. The mechanism in place for reporting to certain congressional committees, the Capital Investment Plan, does not reflect the full effects of these trade-off decisions on the total cost and schedule of its acquisition programs. This information is not currently required by statute, but without it, decision makers do not have the information to understand the full extent of funding that will be required to complete the Coast Guard's planned acquisition programs. For example, in the Fiscal Years 2014 through 2018 Capital Investment Plan, cost and schedule totals did not match the funding levels presented for many programs. The plan proposed lowering the Fast Response Cutter procurement to two per year but still showed the total cost and schedule estimates for purchasing three or six per year—suggesting that this reduced quantity would have no effect on the program's total cost and schedule. Given that decreasing the quantity purchased per year would increase the unit and total acquisition cost, the Coast Guard estimated that the decision to order fewer ships will likely add $600 to 800 million in cost and 5 years to the cutter's final delivery date, but this was absent from the plan. Reporting total cost and delivery dates that do not reflect funding levels could lead to improper conclusions about the effect of these decisions on the program's total cost and schedule and the overall affordability of the Coast Guard's acquisition portfolio. In our report, we suggest that Congress consider amending the law that governs the 5-year Capital Investment Plan to require the Coast Guard to submit cost and schedule information that reflects the impact of the President's annual budget request on each acquisition across the portfolio.

Long Term Plan Needed to Address Gaps That Are Materializing as Coast Guard Shapes Its Capability through the Budget Process

To address budget constraints, the Coast Guard is repeatedly delaying and reducing its capability through its annual budget process. However, the Coast Guard does not know the extent to which its mission needs can be tailored through the annual budget process and still achieve desired results. In addition, this approach puts pressure on future budgets and delays fielding capability, which is reducing performance. Thus, the Coast Guard's ability to meet future needs is uncertain and gaps are materializing in its current fleet. In fact, the Coast Guard has already experienced a gap in heavy icebreaking capability and is falling short of meeting operational hour goals for its major cutter fleet—comprised of the National Security Cutter and the in-service high and medium endurance cutters. These capability gaps may persist, as funding replacement assets will remain difficult at current funding levels.

Without a long-term plan that considers service levels in relation to expected acquisition funding, the Coast Guard does not have a

mechanism to aid in matching its requirements and resources. For example, the Coast Guard does not know if it can meet its other acquisition needs while the Offshore Patrol Cutter is being built. According to the current program of record, acquisition of the Offshore Patrol Cutter will conclude in about 20 years and will account for about two-thirds of the Coast Guard's overall acquisition budget during this time frame. In addition, as we have previously found, the Coast Guard is deferring costs—such as purchasing unmanned systems or replacing its Buoy Tender fleet—that could lead to an impending spike in the requirement for additional funds. The Coast Guard has no method in place to capture the effects of deferring such costs on the future of the acquisition portfolio.

The Coast Guard is not currently required to develop a long-term fleet modernization plan that considers its current service levels for the next 20 years in relation to its expected acquisition funding. However, the Coast Guard's acquisition guidance supports using a long range capital planning framework. According to OMB capital planning guidance referenced by the Coast Guard's Major Systems Acquisition Manual, each agency is encouraged to have a plan that defines its long-term capital asset decisions. This plan should include, among other things, (1) an analysis of the portfolio of assets already owned by the agency and in procurement, (2) the performance gap and capability necessary to bridge the old and new assets, and (3) justification for new acquisitions proposed for funding. OMB officials stated that they support DHS and the Coast Guard conducting a long term review of the Coast Guard's acquisitions to assess the capabilities it can afford.

A long-term plan can enable trade-offs to be seen and addressed in advance, leading to better informed choices and making debate possible before irreversible commitments are made to individual programs. Without this type of plan, decision makers do not have the information they need to better understand the Coast Guard's long-term outlook. When we discussed such an approach with the Coast Guard, the response was mixed. Some Coast Guard budget officials stated that such a plan is not worthwhile because the Coast Guard cannot predict the level of funding it will receive in the future. However, other Coast Guard officials support the development of such a plan, noting that it would help to better understand the effects of funding decisions. Without such a plan, we believe it will remain difficult for the Coast Guard to fully understand the extent to which future needs match the current level of resources and its expected performance levels—and capability gaps—if funding levels remain constant. Consequently, we recommended that the Coast Guard

develop a 20-year fleet modernization plan that identifies all acquisitions needed to maintain the current level of service and the fiscal resources necessary to build the identified assets. While DHS concurred with our recommendation, the response does not fully address our concerns or set forth an estimated date for completion, as the response did for the other recommendations. We continue to believe that a properly constructed 20-year fleet modernization plan is necessary to illuminate what is feasible in the long term and will also provide a basis for informed decisions that align the Coast Guard's needs and resources.

Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

GAO Contact and Staff Acknowledgments

If you or your staff have any questions about this statement, please contact Michele Mackin at (202) 512-4841 or mackinm@gao.gov. In addition, contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Individuals who made key contributions to this testimony are Katherine Trimble, Assistant Director; Laurier R. Fish; Peter W. Anderson; William Carrigg; John Crawford; Sylvia Schatz; and Lindsay Taylor.

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HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE

STATEMENT OF

RONALD O'ROURKE

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CONGRESSIONAL RESEARCH SERVICE

BEFORE THE

HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE

SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION

HEARING ON

MAINTAINING COAST GUARD READINESS

JUNE 18, 2014

NOT FOR PUBLICATION
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HOUSE TRANSPORTATION AND INFRASTRCTURE COMMITTEE

Chairman Hunter, Ranking Member Garamendi, distinguished members of the subcommittee, thank you for the opportunity to appear before you today to testify on maintaining Coast Guard readiness. As with my testimony to the subcommittee last year,[1] my testimony today will focus on issues relating to Coast Guard acquisition funding and acquisition programs, which will affect future Coast Guard readiness.

Program of Record's Planned Force Levels

As a starting point for discussing Coast Guard acquisition and its effect on future Coast Guard readiness, it can be noted that the Coast Guard's program of record for acquiring new cutters and aircraft capable of operating in the deepwater environment includes, by the Coast Guard's calculation, approximately 61% as many cutters and 52% as many aircraft as would be needed to fully perform the Coast Guard's statutory missions in coming years (see **Appendix**). The program of record force, while considerably more capable than the Coast Guard's legacy force, is a fiscally constrained force, not a full-mission-performance force.

This aspect of the program of record force is sometimes overlooked in discussions of Coast Guard acquisition. It is discussed in some detail in my report on Coast Guard cutter procurement.[2] Based on the Coast Guard's calculations, not completely fulfilling the program of record would deepen a capacity shortfall relative to projected future mission demands that is already built into Coast Guard plans.

FY2015 Five-Year CIP Not Available As Of Early June

As of early June, the Coast Guard had not yet submitted to Congress the FY2015 version of its five-year Capital Investment Plan (CIP), despite requests from this subcommittee and others that oversee the Coast Guard for the service to submit the FY2015 CIP in a timely manner. The Coast Guard operates a fleet of long-lived major capital assets (ships and aircraft), and replaces this fleet over a period of many years through expensive acquisition programs. In light of this, having access to a five-year CIP can be valuable if not critical to Congress for evaluating the Coast Guard's proposed budget for the coming fiscal year, and for otherwise exercising Congress' oversight responsibilities. In general, the absence of data on projected acquisitions beyond the coming budget year can make it more difficult for Congress to assess whether acquisition quantities and funding levels proposed for the coming budget year are appropriate.

Coast Guard testimony at hearings held earlier this year suggests that the delay in the submission of the FY2015 CIP has been due at least in part to a basic disagreement between the Coast Guard and the Office of Management and Budget (OMB) concerning the funding level in coming years for the Coast Guard's Acquisition, Construction, and Improvements (AC&I), with OMB apparently supporting a level of roughly $1 billion a year, and the Coast Guard apparently advocating a higher figure of perhaps $1.5 billion per year, or more.[3]

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[1] Statement of Ronald O'Rourke, Specialist in Naval Affairs, Congressional Research Service, before the House Transportation and Infrastructure Committee Subcommittee on Coast Guard and Maritime Transportation Hearing on Coast Guard Readiness: Examining Cutter, Aircraft, and Communications Needs, June 26, 2013.

[2] CRS Report R42567, *Coast Guard Cutter Procurement: Background and Issues for Congress*, by Ronald O'Rourke. The appendix to this statement is drawn from this report.

[3] At a March 26, 2014, hearing before this subcommittee on the proposed FY2015 budgets for the Coast Guard and maritime transportation programs, then-Commandant of the Coast Guard Admiral Robert Papp, when asked by Chairman Hunter when the FY2015 CIP would be submitted, replied:

> Well it should be any day sir, I know that the Secretary [of DHS] has forwarded it on, the Secretary has been in question [sic: questioned] on this [at congressional hearings], [and] I was questioned on it two weeks ago at the Appropriations Subcommittee.

The difference between these two positions on future levels of funding in the AC&I account represents a major fork in the road for the Coast Guard's future readiness to perform its missions. The previous Commandant of the Coast Guard, Admiral Robert Papp, stated on multiple occasions that recapitalizing the Coast Guard's ship and aircraft fleets on a timely basis while also adequately funding other programs covered in the AC&I account would require a funding level of $1.5 billion to $2 billion per year. A sustained funding level of about $1 billion per year, he testified last year, "almost creates a death spiral for the Coast Guard because we are forced to sustain older assets—older ships and older aircraft—which ultimately cost us more money, so it eats into our operating funds, as well, as we try to sustain these older things."[4]

As I testified last year, a comparison with the Navy's budget, while presenting many apples-vs.-oranges issues, suggests that if funding for Coast Guard acquisition were proportionate on a uniformed personnel per-capita basis to Navy acquisition, the AC&I account would total $3.4 billion to $3.5 billion per year. Discounting this figure by one-third to one-half to account for the higher-cost items in the Navy's investment portfolio would produce a figure for the AC&I account of about $1.7 billion to $2.3 billion per year.

One option for the subcommittee would be to request that OMB provide the following:

> Frankly, two weeks ago, as I told the subcommittee then, a part of it was my obstinence in holding out and trying to get the best position for what I foresee the Coast Guard needs... in the future. And I think that's rightly so, we have those very robust discussions in the administration before the budget goes forward. The Secretary [of DHS] is supporting the position that I have in terms of what should be in the CIP for the next five years and I know that he was working directly with the Office or [sic: of] Management Budget to—in order to get it with the administration as soon as possible.
>
> (Transcript of hearing. Papp's remarks as presented here omit a short remark from Chairman Hunter that occurred between "the Coast Guard needs" and "in the future." The remark was: "I read your testimony and I appreciate it.")

At the above-mentioned earlier hearing—a March 12, 2014, hearing on the Coast Guard's proposed FY2015 budget before the Homeland Security subcommittee of the House Appropriations Committee—Admiral Papp, when asked about the delay in submitting the FY2015 CIP, replied:

> Sir, it's my fault. You can rightly hold us accountable for that. And if there's any delay, it's because I've been obstinate in making sure that the administration knows the needs of the United States Coast Guard.
>
> It's—it's not my job, at first, to fit the Coast Guard within a budget. It's my job to look at what we need now and what we're going to need 10, 20 and 30 and 40 years from now. There's only one person who has that responsibility, and that's me.
>
> So, there is a—I would say a robust discussion that goes forth, first of all with the department [DHS], and the department's been very supportive. And then we work with the Office of Management and Budget. And at some point, we come to an agreement. But what I would say is, we've been fighting for everything that we need to try and get it in that five-year plan. And there is—there are—there are disagreements. That's—that's, I think, the most polite way I can put it. And—and at the end of the day, we will finally get to a point where we come to agreement. I'm told, "This is what you're going to get. You have to fit your—your acquisition plan within it." And I think we're at that stage now.
>
> The Secretary [of DHS] has—has committed to making sure we get reports on time. He has—he—we have forwarded it to the department. It has been forwarded on to OMB. And we will—we will work as hard as we can to make sure you get it as soon as possible.
>
> (Transcript of hearing.)

[4] Transcript of May 14, 2013, hearing on the Coast Guard's proposal FY2014 budget before the Homeland Security subcommittee of the Senate Appropriations Committee.

- the analytical basis (including capital asset replacement analysis and mission performance analysis) for concluding that an AC&I account of about $1 billion per year would be appropriate; and
- a long-range projection for Coast Guard capability and capacity, if the AC&I account remains at about $1 billion per year in coming years.

Requested FY2015 AC&I Funding Level Relative to FY2014 CIP

In my testimony last year, I discussed how the FY2014 CIP included a total of about $5.1 billion in acquisition funding, which was about $2.5 billion, or about 33%, less than the total of about $7.6 billion that was included in the Coast Guard's FY2013 CIP. (In the four common years of the two plans—FY2014-FY2017—the reduction in funding from the FY2013 CIP to the FY2014 CIP was about $2.3 billion, or about 37%.) I noted that this was one of the largest percentage reductions in funding that I had seen a five-year acquisition account experience from one year to the next in many years, and that there had been no change in the Coast Guard's strategic environment since the previous year that would suggest a significant reduction in estimated future missions for the Coast Guard.

Although the Coast Guard as of early June had not submitted its FY2015 CIP, the amount of funding requested for the AC&I account for FY2015—$1,084.2 million—does not provide any suggestion that the administration intends to return the AC&I account to the higher funding levels shown in the FY2013 CIP. To the contrary, as shown in **Table 1**, the $1,084.2 million requested for the AC&I account for FY2015 represents a 9.3% reduction from the amount ($1,195.7 million) that was projected for FY2015 under the FY2014 CIP. There still has been no change in the Coast Guard's strategic environment that would suggest a significant reduction in estimated future missions for the Coast Guard since the FY2013 CIP.

Table 1. Funding in AC&I Account

Millions of dollars, rounded to nearest tenth

	FY13	FY14	FY15	FY16	FY17	FY18	FY19
FY13 CIP	1,217.3	1,429.5	1,619.9	1,643.8	1,722.0		
FY14 CIP		951.1	1,195.7	901.0	1,024.8	1,030.3	
FY15 CIP			1,084.2	n/a	n/a	n/a	n/a

Source: FY2013, FY2014, and FY2015 Coast Guard budget submissions.

Notes: n/a means not available as of early June.

Coast Guard Appears to View Polar Icebreaker As Potentially Something Like An Unfunded Requirement

Under the Coast Guard's FY2015 budget submission, the time line for acquiring a new polar icebreaker has become less certain. In the FY2013 budget submission—the submission that initiated the project to acquire the ship—DHS stated that it anticipated awarding a construction contract for the ship "within the next five years" and taking delivery on the ship "within a decade."[5] In the FY2014 budget submission,

[5] U.S. Department of Homeland Security, *Annual Performance Report, Fiscal Years 2011 – 2013*, p. CG-AC&I-40 (pdf page 1,777 of 3,134).

DHS stated that it anticipated awarding a construction contract for the ship "within the next four years."[6] In the Coast Guard's FY2015 budget-justification book, the entry for the polar icebreaker program does not make a statement as to when a construction contract for the ship might be awarded.[7]

Coast Guard testimony about the icebreaker this year suggests that if the AC&I account remains at about $1 billion per year in coming years, the icebreaker could become something like an unfunded requirement. For example, at a March 26, 2014, hearing before this subcommittee on the proposed FY2015 budgets for the Coast Guard and maritime transportation programs, Admiral Papp testified that "It's going to be tough to fit a billion dollar icebreaker in our five-year plan without displacing other things," that "I can't afford to pay for an icebreaker in a $1 billion [per year CIP] because it would just displace other things that I have a higher priority for," and that "I still believe firmly, we need to build a new one but we don't have [the] wherewithal right now, but doing the preliminary work should inform decisions that are made three, four, five, maybe 10 years from now."[8]

The Coast Guard states that it will seek to fund the ship on an interagency basis, the rationale being that other federal agencies, such as National Science Foundation and the Department of Defense, obtain direct benefits from the operation of Coast Guard polar icebreakers. This approach has some precedent—the polar icebreaker *Healy* was funded in FY1990 through the Navy's shipbuilding account. Even so, this is an uncertain funding approach, as other federal agencies now face challenges in funding their own programs within budget constraints.

The eighth and final National Security Cutter (NSC) is to be funded in FY2015, and the first Offshore Patrol Cutter (OPC), according to the FY2013 and FY2014 CIPs, is to be funded primarily in FY2017. Consequently, the FY2016 column may represent a window of opportunity of sorts in the AC&I account for funding a portion (perhaps a significant portion) of the cost of a new polar icebreaker.

Transfer of 14 C-27s Provides Some AC&I Account Funding Relief

The Coast Guard has testified this year that the transfer of 14 C-27 aircraft from the Air Force to the Coast Guard will permit the Coast Guard to not procure 18 HC-144A aircraft called for in the program of record, and that this will provide the Coast Guard with a net savings of roughly $500 million. Other things held equal, this will reduce pressure on the AC&I account for the next few years. It is a measure of just how much pressure the AC&I account is under, however, that even with this windfall, the Coast Guard is apparently unable to identify funding for a new polar icebreaker without making unwanted reductions to other AC&I-funded programs.

National Security Cutters (NSCs) Could Have Been Acquired Less Expensively

As mentioned above, the FY2015 budget requests funding for the eighth NSC, which is to be the final NSC under the program of record. As the acquisition funding stream for acquiring these ships approaches its end, it can be noted that these ships could have been acquired less expensively if they had been

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[6] Department of Homeland Security, United States Coast Guard, *Fiscal Year 2014 Congressional Justification*, p. CGAC&I-32 (pdf page 204 of 403).

[7] Department of Homeland Security, United States Coast Guard, *Fiscal Year 2015, Congressional Justification*, p. CGAC&I-42 (pdf page 196 of 474).

[8] Transcript of hearing.

awarded on a more-even rate (such as a steady one ship per year) and if at least some of the ships had been acquired with a form of multiyear contracting (i.e., either multiyear procurement [MYP] or block buy contracting).[9] The savings from such an approach might have been sufficient to pay for a substantial fraction of one of the eight ships in the class.

Phase II Fast Response Cutter (FRC) Contract May Present An Opportunity for Multiyear Contracting

On September 18, 2013, the Fast Response Cutter (FRC) program received approval from DHS to enter full-rate production,[10] which might be interpreted as four or six FRCs per year, given past FRC production rates of up to six per year. In another reflection of the pressure that the AC&I account is under, however, the Coast Guard's FY2015 budget requests for funding for two FRCs rather than four or six. The request for two FRCs rather than four or six appears to be the result of the FY2015 AC&I account totaling about $1 billion rather than something closer to $1.5 billion, combined with the plan to fund the eighth NSC in FY2015. If the AC&I account remains at about $1 billion per year in coming years, similar pressures on the FRC program could arise in FY2017 and beyond, when the NSC program's place in AC&I account is to be, in effect, taken up by the OPC.

The Coast Guard holds the data rights for the current FRC design and originally planned to hold a competition for a contract to build the remaining 28 FRCs to be procured in FY2015 and beyond (aka the Phase II contract). The Request for Proposals (RFP) for that competition, however, will not be issued soon enough to include FRCs funded in FY2015. Consequently, the Coast Guard now plans to issue a sole-source contract to the current FRC builder, Bollinger, for the construction of the FRCs that are funded in FY2015, and then hold a competition for a Phase II contract covering FRCs procured in FY2016 and beyond. If two (or four or six) FRCs are funded in FY2015 and awarded to Bollinger, then the Phase II contract would cover up to 26 (or 24 or 22) additional FRCs.[11]

On May 29, the Coast Guard released a draft Request for Proposals (RFP) for the Phase II contract.[12] The draft RFP anticipates the Phase II contract being a contract with options, like the Phase I contract with Bollinger that was used for acquiring the first 30 FRCs.[13] An alternative approach for the Phase II contract would be to make it a multiyear contract (i.e., an MYP or block buy contract). An MYP or block buy contract might result in acquisition costs for FRCs procured in FY2016 and beyond that are lower than those possible under an options contract. If there is uncertainty as to the exact annual quantities of FRCs that may be procured in coming years, an MYP or block buy contract could be written to include annual quantity ranges rather than specific annual quantities. One option for the subcommittee would be to

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[9] For more on MYP and block buy contracting, see CRS Report 41909, *Multiyear Procurement (MYP) and Block Buy Contracting in Defense Acquisition: Background and Issues for Congress*, by Ronald O'Rourke and Moshe Schwartz.

[10] "Acquisition Update: Sentinel-class Fast Response Cutter Project Achieves Acquisition Milestone," September 18, 2013, accessed November 18, 2013, at http://www.uscg.mil/acquisition/newsroom/updates/frc092413.asp.

[11] Source: Telephone conversation with Coast Guard liaison office, June 3, 2014.

[12] The Coast Guard requested that industry feedback on the draft RFP be returned by August 14, 2014. See "Acquisition Update: Draft Request for Proposal for Second FRC Production Phase Released," May 30, 2014, accessed June 5, 2014, at http://www.uscg.mil/acquisition/newsroom/updates/frc053014.asp. See also Calvin Biesecker, "Coast Guard Releases Draft RFP For New FRC Competition," *Defense Daily*, June 3, 2014: 2-3.

[13] Source: Telephone conversation with Coast Guard liaison office, June 9, 2014.

understand the potential savings that might be realized through the use of multiyear contracting rather than an options contract. The subcommittee, for example, could consider requesting either the Coast Guard or another organization (such as the Navy) to develop an estimate of the potential savings. As noted in my testimony last year, the Navy makes extensive use of multiyear contracting and consequently is experienced in developing such estimates.

Block Buy Contracting Is An Option For The First Few Offshore Patrol Cutters (OPCs)

Section 215 of H.R. 4005, the Coast Guard and Maritime Transportation Act of 2014, provides authority for the use of MYP contracts for the OPC program. Based on experience with Navy shipbuilding programs, this authority might not be usable until construction of the first OPC is completed in 2020 or 2021, because completion of the lead ship has been the standard in Navy shipbuilding programs for demonstrating that the program has a stable design, which is one of the requirements of 10 USC 2306b, the statute that governs MYP.

If Congress wants to employ multiyear contracting in the OPC program prior to the completion of the lead ship in the program, it could do so by authorizing block buy contracting. With congressional approval, the Navy used a block buy contract to procure the first four boats in the Virginia-class attack submarine program. (Indeed, this contract represented the creation of block buy contracting.) A block buy contract could achieve much of the savings that would be possible in an MYP contract, particularly if the authority to use a block buy contract is written to include the authority normally present in an MYP contract for use of economic order quantity (EOQ) purchases of long-leadtime components.

Mr. Chairman, this concludes my statement. Thank you again for the opportunity to testify, and I look forward to the subcommittee's questions.

Appendix: Adequacy of Planned Numbers of NSCs, OPCs, and FRCs

This appendix reprints with minor changes part of a discussion on the adequacy of planned numbers of NSCs, OPCs, and FRCs from the CRS report on Coast Guard cutter procurement.[14]

The Coast Guard program of record's (POR's) planned force of 91 NSCs, OPCs, and FRCs is about equal in number to the Coast Guard's legacy force of 90 high-endurance cutters, medium-endurance cutters, and 110-foot patrol craft. NSCs, OPCs, and FRCs, moreover, are to be individually more capable than the older ships they are to replace. Even so, Coast Guard studies have concluded that the planned total of 91 NSCs, OPCs, and FRCs would be considerably fewer ships than the number that would be needed to fully perform the service's statutory missions in coming years, in part because Coast Guard mission demands are expected to be greater in coming years than they were in the past. CRS first testified about this issue in 2005.[15]

The Coast Guard estimates that with the POR's planned force of 91 NSCs, OPCs, and FRCs, the service would have capability or capacity gaps[16] in 6 of its 11 statutory missions—search and rescue (SAR); defense readiness; counter-drug operations; ports, waterways, and coastal security (PWCS); protection of living marine resources (LMR); and alien migrant interdiction operations (AMIO). The Coast Guard judges that some of these gaps would be "high risk" or "very high risk."

Public discussions of the POR frequently mention the substantial improvement that the POR force would represent over the legacy force. Only rarely, however, have these discussions explicitly acknowledged the extent to which the POR force would nevertheless be smaller in number than the force that would be required, by Coast Guard estimate, to fully perform the Coast Guard's statutory missions in coming years. Discussions that focus on the POR's improvement over the legacy force while omitting mention of the considerably larger number of cutters that would be required, by Coast Guard estimate, to fully perform the Coast Guard's statutory missions in coming years could encourage audiences to conclude, contrary to Coast Guard estimates, that the POR's planned force of 91 cutters would be capable of fully performing the Coast Guard's statutory missions in coming years.

In a study completed in December 2009 called the Fleet Mix Analysis (FMA) Phase 1, the Coast Guard calculated the size of the force that in its view would be needed to fully perform the service's statutory missions in coming years. The study refers to this larger force as the objective fleet mix. **Table 2** compares planned numbers of NSCs, OPCs, and FRCs in the POR to those in the objective fleet mix.

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[14] CRS Report R42567, *Coast Guard Cutter Procurement: Background and Issues for Congress*, by Ronald O'Rourke.

[15] See Statement of Ronald O'Rourke, Specialist in National Defense, Congressional Research Service, Before the Senate Commerce, Science, and Transportation Committee, Subcommittee on Fisheries and the Coast Guard, Hearing on The Coast Guard's Revised Deepwater Implementation Plan, June 21, 2005, pp. 1-5.

[16] The Coast Guard uses *capability* as a qualitative term, to refer to the kinds of missions that can be performed, and *capacity* as a quantitative term, to refer to how much (i.e., to what scale or volume) a mission can be performed.

Table 2. Program of Record Compared to Objective Fleet Mix

From Fleet Mix Analysis Phase 1 (2009)

Ship type	Program of Record (POR)	Objective Fleet Mix From FMA Phase 1	Objective Fleet Mix compared to POR	
			Number	%
NSC	8	9	+1	+13%
OPC	25	57	+32	+128%
FRC	58	91	+33	+57%
Total	91	157	+66	+73%

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13.

As can be seen in **Table 2**, the objective fleet mix includes 66 additional cutters, or about 73% more cutters than in the POR. Stated the other way around, the POR includes about 58% as many cutters as the objective fleet mix.

As intermediate steps between the POR force and the objective fleet mix, FMA Phase 1 calculated three additional forces, called FMA-1, FMA-2, and FMA-3. (The objective fleet mix was then relabeled FMA-4.) **Table 3** compares the POR to FMAs 1 through 4.

Table 3. POR Compared to FMAs 1 Through 4

From Fleet Mix Analysis Phase 1 (2009)

Ship type	Program of Record (POR)	FMA-1	FMA-2	FMA-3	FMA-4 (Objective Fleet Mix)
NSC	8	9	9	9	9
OPC	25	32	43	50	57
FRC	58	63	75	80	91
Total	91	104	127	139	157

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13.

FMA-1 was calculated to address the mission gaps that the Coast Guard judged to be "very high risk." FMA-2 was calculated to address both those gaps and additional gaps that the Coast Guard judged to be "high risk." FMA-3 was calculated to address all those gaps, plus gaps that the Coast Guard judged to be "medium risk." FMA-4—the objective fleet mix—was calculated to address all the foregoing gaps, plus the remaining gaps, which the Coast Guard judge to be "low risk" or "very low risk." **Table 4** shows the POR and FMAs 1 through 4 in terms of their mission performance gaps.

Table 4. Force Mixes and Mission Performance Gaps

From Fleet Mix Analysis Phase 1 (2009)—an X mark indicates a mission performance gap

Missions with performance gaps	Risk levels of these performance gaps	Program of Record (POR)	FMA-1	FMA-2	FMA-3	FMA-4 (Objective Fleet Mix)
Search and Rescue (SAR) capability	Very high	X				
Defense Readiness capacity	Very high	X				
Counter Drug capacity	Very high	X				
Ports, Waterways, and Coastal Security (PWCS) capacity[a]	High	X	X			
Living Marine Resources (LMR) capability and capacity[a]	High	X	X			[all gaps addressed]
PWCS capacity[b]	Medium	X	X	X		
LMR capacity[c]	Medium	X	X	X		
Alien Migrant Interdiction Operations (AMIO) capacity[d]	Low/very low	X	X	X	X	
PWCS capacity[e]	Low/very low	X	X	X	X	

Source: Fleet Mix Analysis Phase 1, Executive Summary, pages ES-12 and ES-13.

Notes: In the first column, The Coast Guard uses *capability* as a qualitative term, to refer to the kinds of missions that can be performed, and *capacity* as a quantitative term, to refer to how much (i.e., to what scale or volume) a mission can be performed.

a. This gap occurs in the Southeast operating area (Coast Guard Districts 7 and 8) and the Western operating area (Districts 11, 13, and 14).

b. This gap occurs in Alaska.

c. This gap occurs in Alaska and in the Northeast operating area (Districts 1 and 5).

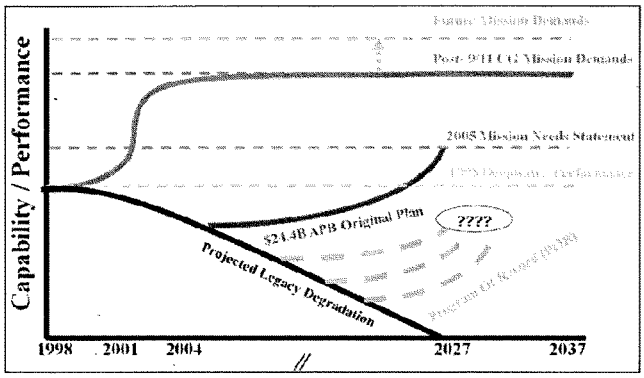
d. This gap occurs in the Southeast and Western operating areas.

e. This gap occurs in the Northeast operating area.

Figure 1, taken from FMA Phase 1, depicts the overall mission capability/performance gap situation in graphic form. It appears to be conceptual rather than drawn to precise scale. The black line descending toward 0 by the year 2027 shows the declining capability and performance of the Coast Guard's legacy assets as they gradually age out of the force. The purple line branching up from the black line shows the added capability from ships and aircraft to be procured under the POR, including the 91 planned NSCs, OPCs, and FRCs. The level of capability to be provided when the POR force is fully in place is the green line, labeled "2005 Mission Needs Statement." As can be seen in the graph, this level of capability is substantially below a projection of Coast Guard mission demands made after the terrorist attacks of September 11, 2001 (the red line, labeled "Post-9/11 CG Mission Demands"), and even further below a Coast Guard projection of future mission demands (the top dashed line, labeled "Future Mission Demands"). The dashed blue lines show future capability levels that would result from reducing planned procurement quantities in the POR or executing the POR over a longer time period than originally planned.

Figure 1. Projected Mission Demands vs. Projected Capability/Performance

From Fleet Mix Analysis Phase 1, Executive Summary



Source: Fleet Mix Analysis Phase 1, Executive Summary, Figure ES-1 on p. ES-2.

FMA Phase 1 was a fiscally unconstrained study, meaning that the larger force mixes shown in **Table 3** were calculated primarily on the basis of their capability for performing missions, rather than their potential acquisition or life-cycle operation and support (O&S) costs.

Although the FMA Phase 1 was completed in December 2009, the figures shown in **Table 3** were generally not included in public discussions of the Coast Guard's future force structure needs until April 2011, when GAO presented them in testimony.[17] GAO again presented them in a July 2011 report.[18]

The Coast Guard completed a follow-on study, called Fleet Mix Analysis (FMA) Phase 2, in May 2011. Among other things, FMA Phase 2 includes a revised and updated objective fleet mix called the refined objective mix. **Table 5** compares the POR to the objective fleet mix from FMA Phase 1 and the refined objective mix from FMA Phase 2.

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[17] Government Accountability Office, *Coast Guard[:]Observations on Acquisition Management and Efforts to Reassess the Deepwater Program, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of John P. Hutton, Director Acquisition and Sourcing Management*, GAO-11-535T, April 13, 2011, p. 10.

[18] Government Accountability Office, *Coast Guard[:]Action Needed As Approved Deepwater Program Remains Unachievable*, GAO-11-743, July 2011, p. 46.

Table 5. POR Compared to Objective Mixes in FMA Phases 1 and 2

From Fleet Mix Analysis Phase 1 (2009) and Phase 2 (2011)

Ship type	Program of Record (POR)	Objective Fleet Mix from FMA Phase 1	Refined Objective Mix from FMA Phase 2
NSC	8	9	9
OPC	25	57	49
FRC	58	91	91
Total	**91**	**157**	**149**

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13, and Fleet Mix Analysis Phase 2, Table ES-2 on p. iv.

As can be seen in **Table 5**, compared to the objective fleet mix from FMA Phase 1, the refined objective mix from FMA Phase 2 includes 49 OPCs rather than 57. The refined objective mix includes 58 additional cutters, or about 64% more cutters than in the POR. Stated the other way around, the POR includes about 61% as many cutters as the refined objective mix.

Compared to the POR, the larger force mixes shown in **Table 3** and **Table 5** would be more expensive to procure, operate, and support than the POR force. Using average NSC, OPC, and FRC procurement cost figures, procuring the 58 additional cutters in the Refined Objective Mix from FMA Phase 2 might cost an additional $10.7 billion, of which most (about $7.8 billion) would be for the 24 additional FRCs. (The actual cost would depend on numerous factors, such as annual procurement rates.) O&S costs for these 58 additional cutters over their life cycles (including crew costs and periodic ship maintenance costs) would require billions of additional dollars.[19]

The larger force mixes in the FMA Phase 1 and 2 studies, moreover, include not only increased numbers of cutters, but also increased numbers of Coast Guard aircraft. In the FMA Phase 1 study, for example, the objective fleet mix included 479 aircraft—93% more than the 248 aircraft in the POR mix. Stated the other way around, the POR includes about 52% as many aircraft as the objective fleet mix. A decision to procure larger numbers of cutters like those shown in **Table 3** and **Table 5** might thus also imply a decision to procure, operate, and support larger numbers of Coast Guard aircraft, which would require billions of additional dollars. The FMA Phase 1 study estimated the procurement cost of the objective fleet mix of 157 cutters and 479 aircraft at $61 billion to $67 billion in constant FY2009 dollars, or about 66% more than the procurement cost of $37 billion to $40 billion in constant FY2009 dollars estimated for the POR mix of 91 cutters and 248 aircraft. The study estimated the total ownership cost (i.e., procurement plus life-cycle O&S cost) of the objective fleet mix of cutters and aircraft at $201 billion to $208 billion in constant FY2009 dollars, or about 53% more than the total ownership cost of $132 billion to $136 billion in constant FY2009 dollars estimated for POR mix of cutters and aircraft.[20]

The POR was originally defined in 2004 as the optimal mix of assets that could be acquired for a total estimated acquisition cost of about $24 billion, and the $24 billion figure was for a time referenced as a baseline in discussing Coast Guard plans for acquiring new deepwater-capable ships and aircraft.

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[19] The FMA Phase 1 and Phase 2 studies present acquisition and life-cycle ownership cost calculations for force mixes that include not only larger numbers of NSC, OPCs, and FRCs, but corresponding larger numbers of Coast Guard aircraft.

[20] Fleet Mix Analysis Phase 1, Executive Summary, Table ES-11 on page ES-19, and Table ES-10 on page ES-18. The life-cycle O&S cost was calculated through 2050.

WRITTEN TESTIMONY OF
James Offutt
President, Navy League of the United States

BEFORE THE UNITED STATE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION

MAINTAINING COAST GUARD READINESS

June 18, 2014
Washington, D.C.

Chairman Hunter, Ranking Member Garamendi, and Members of the Committee — thank you for the opportunity to appear before you today on such an important topic. I am grateful for your kind introduction, and for your leadership in bringing this topic to the nation's attention.

It is an honor and a privilege to be here to today talk about the Coast Guard, our fifth armed service.

The Navy League is one of a few advocates that act on behalf of the Coast Guard. The Navy League was founded in 1902 with the encouragement of President Theodore Roosevelt, and since then has provided a powerful, nonpartisan voice for stronger sea services to Congress and to the American people. The Navy League has grown into the foremost citizens' organization to serve, support, and stand with all the sea services – the U.S. Navy, U.S. Marine Corps, U.S. Coast Guard and U.S.-flag Merchant Marine. The Navy League comprises 43,000 civilians in more than 245 councils around the world, working to support sea service members and their families. The Navy League has three missions: to enhance the morale of active-duty personnel and their families; to inform Congress and the American public on the importance of strong sea services; and to support youth through programs that expose young people to the values of our sea services. We are grateful for the opportunity to fulfill our mission of advocacy before this committee.

The U.S. Coast Guard is a truly unique service, with military and civil responsibilities, and humanitarian missions that have accrued by Acts of Congress since its founding in 1790. This extraordinarily broad mission portfolio continues to serve the United States well—though we as a nation have not treated the Coast Guard as well as we should. Since 9/11, the Coast Guard has seen its area of responsibility grow to 11 statuary missions, but its budget growth has decelerated, failing to match mission demand or meet inflation adjustments.

We must fund the Coast Guard properly, with an operating budget of no less than $6.8 billion and an acquisition budget of $2.5 billion, so that the service can continue to provide protection on the seas, from threats delivered by sea, and of the sea itself.

The Coast Guard provides a complementary and non-redundant portfolio of operations that furthers the nation's maritime presence worldwide. 2013 was another year of many operational successes, with over 7,400 lives saved, more than $3 billion worth of illicit drugs seized before they could hit America's streets and over 8,400 security boardings of vessels in and around the United States. Concluding his final year as Commandant, Admiral Robert Papp, Jr. —the 24th Commandant of the Coast Guard —passes on to Admiral Paul Zukunft three main challenges: investing resources for greater long-term operational capability, preserving critical front-line operations, and strengthening resource and operational stewardship through risk-based allocation of resources. Thus the Coast Guard's priorities mirror those challenges.

Completing the eight National Security Cutters (NSCs) in the approved program of record is the Coast Guard's most critical acquisition goal, and we thank Congress for its support for this program. As the replacement vessel for the current fleet of 12 378-foot High Endurance Cutters (WHECs), the NSC will provide a highly capable vessel and a robust command and control platform even in harsh operating environments, such as the Pacific Ocean, the Bering Sea and the Arctic. Admiral Papp has effectively espoused the need to keep four of these vessels underway at a time in key operational arenas, including Alaska and the Bering Sea, the Western Pacific, and in counterdrug operations off Latin and Central America and in the Caribbean.

However, at the rate that new cutters are coming online and older ships are being decommissioned, there will be an unavoidable capability gap that will pose significant risk to

America's security. Some of that gap in coastal areas will be met by the 154-foot Sentinel-Class Fast Response Cutter (FRC) that is currently being constructed as a replacement for the Coast Guard's worn-out fleet of 110-foot patrol boats. Several of the expected 58 new FRCs have been commissioned and are in service today, mostly to support high-paced counter-drug and alien-migration operations in south Florida and the Caribbean. The President's request for production funding to construct two more FRCs in FY15 is the minimum necessary to improve the Coast Guard's waning operational capability.

Highly important for future Coast Guard operations is to begin construction of the Offshore Patrol Cutter (OPC), which will replace 14 210-foot and 13 270-foot medium-endurance cutters built in the 1960s and 1980s, respectively. While the OPC is less capable than the NSC, it will serve as an operational workhorse to carry out the Coast Guard's primary missions. Given the requirement to decommission more vessels in 2015 than bring new vessels into the fleet, the Coast Guard must move ahead smartly with reviewing the preliminary design work for the OPC and, very soon, begin construction. Given the magnitude of the pending capability gap and significant economies of scale to be realized, the Navy League believes Congress should fund the construction of at least two OPCs annually.

Aviation assets also are key to the Coast Guard's future. One of the most pressing aviation projects is the continued acquisition of the HC-130J Long-Range Surveillance Aircraft, as the anticipated final HC-144A Maritime Patrol Craft receives operations and maintenance funding in FY15. With the consolidation of the HC-130H and HC-130J projects into a single Long-Range Surveillance program of record, some basic policy decisions have been defined for that fleet. But in a new development, the Coast Guard recently received authority to accept 14 C-27J aircraft from the Air Force. The Coast Guard needs Acquisition, Construction and Improvement funding of at least $15M in FY15 to continue the C-27J Acquisition Program Office (APO) stand up, including APO flight hours, technical support, and training to bring these aircraft to operational capability with minimal disruption and risk so as to meet maritime surveillance needs.

Finally, in looking at the future scope of the Coast Guard's areas of responsibility, one geographic area of operations that stands out is the Arctic. Its abundant natural resources, combined with an unforgiving environment, have made Alaska a focal point of the Coast Guard's fisheries management and search-and-rescue activities. However, in recent years as ice over the Arctic cap has diminished and discovery of rich new sources of energy are believed to be more likely, the Arctic's importance will only increase. The Coast Guard recently published its Arctic Strategy document to guide its Arctic operations into the future. Three strategic objectives flow from this document: Improving Awareness, Modernizing Governance and Broadening Partnerships. To operationalize this strategy, the Coast Guard must ensure continued capability in Arctic icebreaking. Currently operating sufficiently with one operational Polar Code 1 (heavy) icebreaker and one Polar Code 3 (medium) icebreaker, the Coast Guard must initiate a heavy icebreaker acquisition program now if a new capability is to be brought online in this decade. Most importantly, this necessary acquisition must be seen as a national priority and it must be funded in addition to the Coast Guard's already meager acquisition budget. A new Polar Icebreaker likely will cost in excess of $1 billion. However, enabling the United States to have the capability of operating in such an expansive and harsh environment will be a necessary investment the nation must make.

Keeping up with the demands of a fast-paced operational environment with reduced numbers of assets will be difficult and will place greater demands on already hard-working Coast Guard men and women. In a competitive human resource environment, the Coast Guard must maintain parity with the other services in matters such as pay, allowances, training, and health-care as well as civilian pay raises and retirement contributions. No matter what develops in Washington's budget negotiations this year, the Navy League believes that it is critical for the Coast Guard to maintain a minimum of 42,000 active duty military and 8,100 civilian personnel to support current missions.

Recently commissioned assets also will require operational and maintenance funding of at least $72 million. New assets -- including shore facilities, the FRCs, the Response Boat Medium, Rescue 21 command centers and the HC-144 Maritime Patrol Aircraft -- all must be

operated and maintained to accomplish the Coast Guard's broad mission set. These new assets will require additional personnel to operate them in FY15.

As fast-paced operations continue, the Coast Guard must be effective not only through near-flawless mission execution, it also must efficiently manage its existing assets and act as a good steward of taxpayers' investments. While some new assets will be coming online in FY15, at the same time the Coast Guard will decommission many aging assets and reduce the personnel associated in operating them. The assets to be decommissioned in FY15 include two 378-foot High-Endurance Cutters, eight 110-foot coastal patrol boats and three HC-130 aircraft. The Navy League understands the necessity of being good stewards of the taxpayer's dollar, but remains concerned about the increasing capability gap caused by the rapid decommissioning of operational assets before equally capable replacement assets are available.

As with all mobile forces, presence is key. The only limiting factor to how much our Coast Guard can accomplish is how many ships and aircraft they have, and how much training they receive. We have had the chance to notice the direct correlation during sequestration. The Coast Guard, after having $200 million cut by sequestration, saw a 30% reduction in drug interdiction. If the Coast Guard remains underfunded, our national leaders will have to decide what missions they want unfulfilled. The Coast Guard cannot do more with less into perpetuity.

In summary, the Navy League of the United States recommends an operating budget of no less than $6.8 billion, authorized personnel of no less than 42,000 active-duty Coast Guard men and women, and restoration of a Reserve force strength to FY14-enacted levels. The $10.5 million reduction to the Reserve Training appropriation in FY15 degrades sustained Reserve response to disasters and national emergencies. We recommend a steady acquisition budget of $2.5 billion annually; support the NSC program; continued funding sufficient to procure at least two FRCs in FY15 and every year thereafter until completion of the program of record; construction of the OPC beginning between FY17 and FY18, with funding sufficient to construct at least two OPCs annually; funding to support spare parts necessary to maintain operational availability of the HC-144A Maritime Patrol Aircraft and the HC-130J Long-Range Surveillance Aircraft; funding for C-27J spare parts in addition to funding for a C-27J simulator

and to stand up the C-27J Acquisition Program Office; continued funding for modernization of MH-65 Short Range Recovery helicopters; and pre-acquisition activities for one new Polar Icebreaker with future funding for continued construction.

In my role as National President of the Navy League, I have been privileged to visit a 110-foot patrol boat commanded by a lieutenant, a Coast Guard station headed by senior enlisted, and many other Coast Guard platforms and stations. The American people should know that based on those many meetings, I have the upmost confidence in the ability of Coast Guard personnel to carry out their mission. Their dedication, sense of service, and devotion to this country inspire and awe me. They can carry out their missions; it is our job to ensure they have the right tools to do so.

We ask the Coast Guard to do much, but we give it very little. In the FY14 budget request, the acquisition budget did not even break $1 billion, and FY15's request is only slightly over $1 billion — not nearly enough for the Coast Guard to effectively complete its missions. We second the words of last year's House appropriations draft bill for the Coast Guard, which stated: "The fiscal year 2014 proposal is even more egregious, and gives the impression that this Administration does not appropriately value the work of the Coast Guard. It includes the lowest level of drug interdiction effectiveness in the past five years and reduces recapitalization funding to unsustainable levels. Over the past decade when our Nation has called for help, the Coast Guard has responded: they responded on the morning of 9/11 by helping untold numbers of people evacuate the devastation of lower Manhattan; they responded during the aftermath of Katrina by saving survivors stranded on rooftops; they responded by being the first to arrive in Haiti after an earthquake hit the country and killed thousands; and more recently, they responded to the worst oil spill in the history of our Nation. If the country intends for the Coast Guard of tomorrow to be as effective as the Coast Guard we have today, and have depended on for decades, these reductions must be resoundingly rejected."

The Navy League would like to thank this Committee for its leadership, and thank Congress for being supportive of the Coast Guard in ensuring they have the resources they need. We must be as good of shipmates to them as they have been to every American.

United States Government Accountability Office

Report to Congressional Requesters

June 2014

COAST GUARD ACQUISITIONS

Better Information on Performance and Funding Needed to Address Shortfalls

GAO-14-450

GAO Highlights

Highlights of GAO-14-450, a report to congressional requesters

Why GAO Did This Study

The Coast Guard is managing a multi-billion dollar effort to modernize aging assets, including ships, aircraft, and information technology to provide new capabilities to conduct missions ranging from marine safety to defense readiness. GAO has reviewed the Coast Guard's acquisitions since 2001 and has found it faces challenges managing its portfolio. In 2007, the Coast Guard established a cost baseline of $24.2 billion for 13 assets. GAO was asked to examine the Coast Guard's current and planned acquisition portfolio.

This report assesses: (1) operational performance and testing of selected assets; (2) the current cost of the Coast Guard's portfolio and funding plans; and (3) the extent to which the Coast Guard is experiencing capability gaps, if any, given known affordability issues. To conduct this work, GAO analyzed the operational performance and test reports for all 4 newly fielded assets that the Coast Guard planned to test and the costs and capabilities of its major system acquisition portfolio. GAO also interviewed Coast Guard, DHS, and Navy officials.

What GAO Recommends

Congress should consider requiring the Coast Guard to include additional information in its Capital Investment Plan. In addition, the Secretary of DHS should clarify when minimum performance standards should be achieved, conduct C4ISR testing, and develop a long-term modernization plan. DHS concurred with the recommendations, but its position on developing a long-term plan does not fully address GAO's concerns as discussed in the report.

View GAO-14-450. For more information, contact Michele Mackin at (202) 512-4841 or mackinm@gao.gov.

June 2014

COAST GUARD ACQUISITIONS

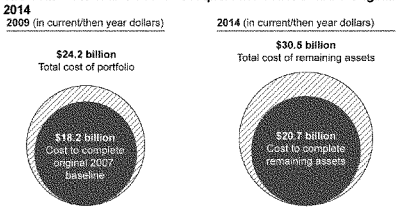
Better Information on Performance and Funding Needed to Address Shortfalls

What GAO Found

The selected Coast Guard assets that GAO reviewed are generally demonstrating improved performance—according to Coast Guard operators—but GAO found that they have yet to meet all key requirements. Specifically, two assets, the HC-144 patrol aircraft and Fast Response Cutter, did not meet all key requirements during operational testing before being approved for full-rate production, and Department of Homeland Security (DHS) and Coast Guard guidance do not clearly specify when this level of performance should be achieved. Additionally, the Coast Guard changed its testing strategy for the Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) system and, as a result, is no longer planning to test the system's key requirements. Completing operational testing for the C4ISR system would provide the Coast Guard with the knowledge of whether this asset meets requirements.

As acquisition program costs increase across the portfolio, consuming significant amounts of funding, the Coast Guard is farther from fielding its planned fleet today than it was in 2009, in terms of the money needed to finish these programs. In 2009, GAO found that the Coast Guard needed $18.2 billion to finish its 2007 baseline, but now needs $20.7 billion to finish these assets.

The Total Cost of and Cost to Complete the Coast Guard's Original 2007 Baseline in 2009 and 2014



Source: GAO analysis of Coast Guard data.

To inform Congress of its budget plans, the Coast Guard uses a statutorily required 5-year Capital Investment Plan, but the law does not require the Coast Guard to report the effects of actual funding levels on individual projects and, thus, it has not done so. For example, the Coast Guard has received less funding than planned in its annual budgets, but has not reflected the effects of this reduced funding in terms of increased cost or schedule for certain projects. Without complete information, Congress cannot know the full cost of the portfolio.

The Coast Guard has repeatedly delayed and reduced its capability through its annual budget process and, therefore, it does not know the extent to which it will meet mission needs and achieve desired results. This is because the Coast Guard does not have a long-term fleet modernization plan that identifies all acquisitions needed to meet mission needs over the next two decades within available resources. Without such a plan, the Coast Guard cannot know the extent to which its assets are affordable and whether it can maintain service levels and meet mission needs.

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GAO U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

June 5, 2014

The Honorable Bill Shuster
Chairman
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Duncan Hunter
Chairman
Subcommittee on Coast Guard and Maritime Transportation
Committee on Transportation and Infrastructure
House of Representatives

The Coast Guard is managing a multi-billion dollar acquisition portfolio as it seeks to modernize its aging assets, including ships, planes, and information technology. Since 2001, we have reviewed the Coast Guard's acquisition programs and reported to Congress on the risks and uncertainties in its acquisition portfolio.[1] Our prior work has highlighted problems with the cost, management, and oversight of the Coast Guard's acquisition portfolio that have led to delivery delays and other operational challenges. For example, in a report issued in September 2012, we found that the cost and schedule of the Coast Guard's acquisition portfolio remains unknown because of outdated baselines and uncertainty surrounding affordability. We also found that opportunities exist to address affordability through the requirements process. Overall, we concluded that the Coast Guard had made strides in its efforts to improve its acquisition management capabilities, and the Department of Homeland Security (DHS) agreed with our recommendations to conduct a portfolio review and to identify the Executive Oversight Council as the body to oversee the Coast Guard's portfolio management approach.[2]

You asked us to review the Coast Guard's current and planned acquisition portfolio. We reviewed (1) how selected assets are performing operationally and to what extent they are achieving desired performance levels in testing; (2) the current cost of the Coast Guard's acquisition

[1] See list of related GAO products at the end of this report.

[2] GAO, *Coast Guard: Portfolio Management Approach Needed to Improve Major Acquisition Outcomes*, GAO-12-918 (Washington, D.C.: Sept. 20, 2012).

portfolio as well as plans to fund its assets; and (3) the extent to which the Coast Guard is experiencing capability gaps, if any, given known affordability issues.

To assess the operational performance of Coast Guard assets, we selected all four major acquisition programs that were fielded between fiscal year 2007 and 2014 that the Coast Guard planned to test. These assets were also part of the Coast Guard's original 2007 baseline. The specific assets reviewed were the Maritime Patrol Aircraft (HC-144), Fast Response Cutter, National Security Cutter, and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. For each asset, we reviewed the operational performance through post deployment reports, test reports, and met with asset operators. We also interviewed officials at the Navy's Commander Operational Test and Evaluation Force (COTF) and DHS Office of Test and Evaluation to discuss observations and met with officials from the four programs. To assess the cost and schedule of the Coast Guard's portfolio and steps taken to address affordability concerns, we reviewed each asset's acquisition program baseline as well as the Coast Guard's budget and discussed the acquisition portfolio with Coast Guard, DHS, and Office of Management and Budget (OMB) officials and followed up on previous efforts to address affordability. We also reviewed the Coast Guard's Capital Investment Plan and compared it to the relevant law that specifies the contents of the plan.[3] To assess what, if any, capability gaps exist given the Coast Guard's affordability issues, we reviewed funding needs, mission needs, future plans, and performance data and reviewed the Coast Guard's fiscal year 2014 and 2015 budgets. We reviewed the Coast Guard's estimates of its overall fleet performance in key areas and also reviewed any current or potential performance gaps. We also looked at the extent to which the Coast Guard is pursuing alternatives that could reduce costs. Appendix I contains more information regarding our scope and methodology.

[3] 14 U.S.C. § 663. The Coast Guard's Capital Investment Plan is a 5-year plan presented to Congress that includes, among other things, projected funding for capital assets in such areas as acquisition, construction, and improvements. The Coast Guard updates the Capital Investment Plan annually, and submits it with the President's budget in any given year. The Capital Investment Plan is approved by DHS and OMB and, as we have reported in the past, is subject to significant change each year. See GAO-12-918.

We conducted this performance audit from June 2013 to June 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The Coast Guard is a multi-mission, maritime military service within DHS. The Coast Guard's range of responsibilities includes maintaining the United States' maritime borders, facilitating the global movement of commerce, safeguarding marine resources, and protecting those at sea. To meet its statutory missions, the Coast Guard operates a number of vessels, aircraft, and information technology systems. Many of the assets that the Coast Guard operates were delivered between 1960 and 1992 and are approaching the end of or have exceeded the period for which they were expected to perform—known as the assets' service lives.

A Brief History of the Deepwater Program

The Coast Guard began a recapitalization effort in the late 1990s to modernize a significant portion of its entire surface and aviation fleet by rebuilding or replacing assets. The Coast Guard awarded a contract to Integrated Coast Guard Systems (ICGS) in June 2002 to be the systems integrator for the portfolio. The Coast Guard generally provided ICGS with broad, overall performance specifications—such as the ability to interdict illegal immigrants—and ICGS determined the assets needed and their specifications. A central aspect of this effort was to use information technology to connect its major assets through a single command and control architecture—C4ISR—to improve the accuracy and speed of conducting Coast Guard missions. This system of systems approach was the effort formerly known as Deepwater. In 2002, the Coast Guard conducted an analysis that determined the fleet, as designed by ICGS, would have significant capability gaps in meeting mission requirements that emerged after the September 11, 2001, terrorist attacks. The Coast Guard decided, due to fiscal constraints, not to make significant changes to the ICGS planned fleet, but did approve changes to several assets' capabilities. In 2012, we reported on the Coast Guard's progress in

achieving these capabilities, such as adding chemical, biological, and other decontamination capability.[4]

In 2006, the Coast Guard acknowledged that it had relied too heavily on contractors and, citing cost increases, took over the role of lead systems integrator. DHS approved a new baseline in May 2007 that established the total acquisition cost of the Deepwater program at $24.2 billion and projected the Coast Guard would complete the acquisition in 2027. The Coast Guard also reconsidered the planned fleet mix, required to meet the established mission needs, through a series of analyses. We reviewed these analyses in May 2012 and found that the Coast Guard did not consider any assets with less capability than the Deepwater assets and that the Coast Guard used optimistic cost constraints to conclude that it could afford the portfolio.[5] As of the approval of the fiscal year 2012 budget, DHS and the Coast Guard no longer use the term "Deepwater" for the program aimed at recapitalizing its surface, air, and information technology capacity. This effort is now called Coast Guard recapitalization and it includes many of the assets that made up the former Deepwater effort as well as other major acquisitions.

Overview of the Current Coast Guard Acquisition Portfolio

The Coast Guard has 11 major acquisition programs in its current portfolio, based on the Fiscal Years 2014 through 2018 Capital Investment Plan. Of these 11 programs, 8 were also a part of the 2007 recapitalization portfolio.[6] Over time, the composition of the portfolio has changed. For example, since our last review in 2012, the Coast Guard has added 3 programs to its acquisition portfolio and another 7 programs are ending and, therefore, will no longer need additional acquisition funding. Table 1 provides information regarding each major acquisition program in the portfolio as well as the programs that do not need additional funding. Shaded assets were a part of the 2007 recapitalization

[4] GAO-12-918.

[5] GAO, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R (Washington, D.C.: May 31, 2012).

[6] A major acquisition is equipment, service, and/or intellectual property acquired by the Coast Guard with a lifecycle cost greater than $300 million.

portfolio, formerly known as Deepwater. Appendix III shows the estimated cost of programs in the current portfolio.[7]

Table 1: Coast Guard Major Acquisition Portfolio as of March 2014

Name	Quantity delivered	Quantity planned	Description
Surface			
National Security Cutter	3	8	The 418-foot National Security Cutter is the flagship of the Coast Guard's fleet, with an extended on-scene presence, long transits, and forward deployment. The cutter, with its aircraft and small-boat assets, operates worldwide.
Offshore Patrol Cutter	0	25	The Offshore Patrol Cutter is intended to conduct patrols for homeland security functions, law enforcement, and search-and-rescue operations. It will be designed for long-distance transit, extended on-scene presence, and operations with deployable aircraft and small boats. The first ship is expected to be delivered in 2021.
Fast Response Cutter	9	58	The Fast Response Cutter, also referred to as the Sentinel class, is a 154-foot patrol boat that operates with a small boat and is designed to have high readiness, speed, adaptability, and endurance to perform a wide range of missions.
Icebreaker (new)	0	TBD	The heavy polar icebreaker is intended to replace the aging Polar Star and is intended to operate in both Arctic and Antarctic waters. This program is in the initial acquisition stages.
In-Service Vessel Sustainment (new)	N/A	N/A	New program for major operational fleet maintenance events, such as midlife maintenance and service life extensions. The Coast Guard intends for this to be a continuously funded line item in its acquisition budget.
Aviation			
HC-130H/J – Long Range Surveillance Aircraft	6	22	The HC-130H and HC-130J are four engine turbo-prop aircraft that the Coast Guard has combined into one project called Long Range Surveillance (LRS) that will increase its capabilities. The Coast Guard intends to update the HC-130H in multiple segments, but has paused further sustainment efforts while evaluating the recent addition of the C-27J to the Coast Guard's aviation fleet. The HC-130J is a new variant that the Coast Guard has deployed with improved interoperability, C4ISR, and sensors.

[7] The 2007 baseline includes $3.6 billion in "other costs including project management" that we exclude from our analysis of the cost of the Coast Guard's assets in appendix III.

Name	Quantity delivered	Quantity planned	Description
Maritime Patrol Aircraft (HC-144)	17	36	The HC-144 is a transport and surveillance, fixed-wing aircraft for search and rescue, enforcement of laws and treaties, and transportation of cargo and personnel. Congress recommended funding to the Coast Guard in fiscal year 2014 to pursue a new mission system that is currently in use by the U.S. Navy and DHS's Customs and Border Protection. Mission system refers to the hardware and software needed to operate equipment, such as radars and communications gear. This gear does not need to be replaced to operate with the new mission system. The recent receipt of C-27Js will likely reduce the number of HC-144s that the Coast Guard plans to purchase.
C-27J[a] (new)	0	14	In 2014, the Coast Guard was authorized to receive 14 C-27Js from the Air Force, which had purchased this two engine turbo-prop aircraft for transporting payloads to forward-deployed forces. According to program officials, these aircraft need C4ISR systems (i.e. a mission system pallet) before they can be used for all intended missions.
MH-65 (quantities reflect progress implementing segment IV)	66	102	The MH-65 Dolphin is the Coast Guard's short range recovery helicopter. It is being upgraded to improve its engines, sensors, navigation equipment, avionics, and other capabilities in multiple segments.
Unmanned Aircraft System	0	TBD	The Coast Guard is exploring the use of Unmanned Aircraft Systems to augment cutter and land-based aviation capabilities.
C4ISR			
Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)	N/A	N/A	The Coast Guard is incrementally acquiring C4ISR capabilities, including upgrades to existing cutters and shore installations, acquisitions of new capabilities, and development of a common operating picture to provide operationally relevant information and knowledge across the full range of Coast Guard operations.
Assets no longer needing acquisition funding			
Response Boat-Medium	153	174	The Response Boat-Medium replaces the Coast Guard's fleet of 41-foot utility boats as well as other nonstandard boats. The last of 174 boats are planned to be delivered by the end of fiscal year 2015.
Medium Endurance Cutter Sustainment	25	27	This project replaces obsolete and unsupportable parts on aging cutters. The last of the 27 ships are planned to be completed by the end of fiscal year 2014.
Patrol Boat Sustainment	17	17	This project replaces obsolete and unsupportable parts on aging cutters. It has been completed.
MH-60	42	42	The MH-60 is a medium-range recovery helicopter designed to perform search and rescue missions in all weather conditions. The Coast Guard is not planning to fund the final two segments of the project, which include a surface search radar and information technology systems.
Nationwide Automatic Identification System	8	58	This data collection, processing and distribution system provides information to enhance safety of navigation and improve awareness. The project is scheduled to complete deployment to 58 ports by the end of fiscal year 2014.
Interagency Operations Centers	22	35	The Interagency Operations Centers are intended to improve joint coordinated emergency responses among other coordinated activities. The project is scheduled to complete deployment to 35 locations by the end of fiscal year 2017. This project was downgraded to a non-major acquisition in March 2013.

Name	Quantity delivered	Quantity planned	Description
Rescue 21	32	37	Rescue 21 is intended to improve legacy search and rescue capability by increasing system coverage and operational availability, and by providing and integrating additional communications, interoperability, position location, and recording/archiving/retrieving capabilities. The Rescue 21 project is planned to provide the full capability to all planned areas by the end of fiscal year 2017.

Source: GAO presentation of Coast Guard data.

[a]We added the C-27J to the Coast Guard's acquisition portfolio since this asset is planned to be transferred to the Coast Guard pursuant to the National Defense Authorization Act for Fiscal Year 2014, Pub. L. No 113-66, § 1098(e) (2013).

Coast Guard Acquisition Management

The Coast Guard has continued to strengthen its acquisition management capabilities when purchasing individual assets. For example, in response to one of our prior recommendations, the Coast Guard released a January 2013 update to its *Major Systems Acquisition Manual* to, among other things, better reflect cost and schedule estimation best practices and to clarify the roles and responsibilities of the Executive Oversight Council. The Executive Oversight Council is comprised of admirals and senior executives who regularly conduct oversight meetings to govern the acquisition process. As part of the budget process, the Executive Oversight Council provides recommendations to the Investment Board, which are presented to the Investment Review Board—a higher level group—and ultimately the Commandant for final investment decisions.

In addition, the Coast Guard has sought to maximize competition in its acquisitions and to buy commercial products when available. For example, the Coast Guard purchased a "reprocurement data licensing package" from Bollinger Shipyards, Inc. that contains the technical specifications and licenses necessary to build the Fast Response Cutter. The Coast Guard is planning to use this information to conduct a full and open competition for the remaining vessels. Our previous work has shown that when the government owns technical data rights, it does not need to rely on only one contractor to meet requirements.[8] Further, the Coast Guard has developed a warranty provision under its contract with Bollinger Shipyards that has held the contractor responsible for production deficiencies. While the Coast Guard does not always have insight into how much it costs the contractor to fix these issues, after multiple deficiencies interrupted production, officials noted they are

[8] GAO, *Defense Contracting: Actions Needed to Increase Competition*, GAO-13-325 (Washington, D.C.: Mar. 28, 2013).

confident that the Coast Guard has received value from this warranty. The Coast Guard plans to use these strategies when purchasing the Offshore Patrol Cutter.

Operational Testing

DHS and Coast Guard acquisition guidelines provide that representative units of major acquisition assets should be operationally tested by an independent test agency before they are approved for full-rate production. The Coast Guard uses the Navy's Commander Operational Test and Evaluation Force (COTF) to conduct operational tests and other evaluations for its major acquisition assets. COTF serves as an independent evaluator of an asset's capabilities and has experience testing Navy assets. Operational testing characterizes the performance of an asset during a discrete period of time but testers may also use actual mission performance data when available. In conducting operational testing, COTF evaluates an asset's operational effectiveness and suitability:

- For operational effectiveness, testers determine whether or not an asset can meet its missions.
- For operational suitability, testers determine whether or not the agency can logistically support the asset to an acceptable standard, such as having the asset available for operations 80 percent of the year.

According to DHS and Coast Guard acquisition guidance, results of operational tests are used to evaluate the degree to which the capability or system being acquired meets its requirements and is able to operate in its intended environment, both before and often after full-rate production commences.

In addition to verifying that an asset is operationally effective and suitable, operational testing also tests key performance parameters, which are the capabilities considered essential for mission success. For example, a key performance parameter for the Fast Response Cutter is being able to reach a top speed of at least 28 knots. According to DHS and Coast Guard acquisition guidance, when programs fail to meet key performance parameters, program managers are required to file breach memorandums stating that the program failed to demonstrate the required performance threshold. Program managers are also required to formally notify Coast Guard leadership, DHS, and certain congressional committees and file a remediation plan within 30 days that proposes corrective actions to mitigate the issues that resulted in the breach. Within 90 days of filing the

breach notification the program should have accomplished one of the following three actions: (1) re-validate the original baseline parameters, (2) have a new baseline approved that revises the parameters that were breached, or (3) conduct a program review that evaluates the proposed baseline revisions and makes recommendations to the acquisition decision authority.

Operators Extol New Assets' Performance Compared to Aging Counterparts, but These Assets Have Yet to Meet All Key Requirements

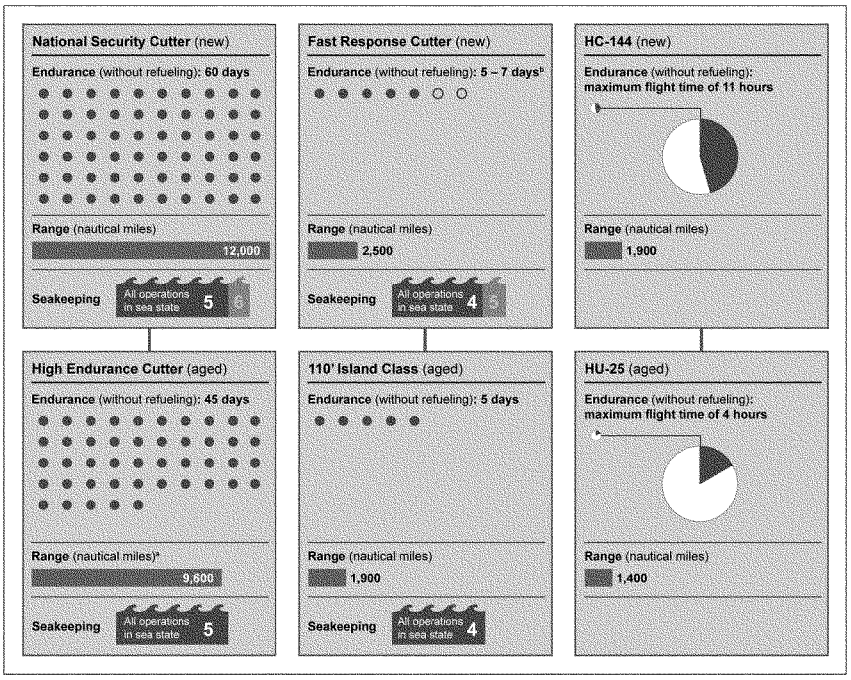
The Coast Guard's new asset classes that we reviewed—the National Security Cutter, Fast Response Cutter, HC-144, and the C4ISR information technology system—are generally demonstrating improved mission performance over the assets they are replacing, according to Coast Guard officials who operate these assets. For example, these new assets have greater fuel and food capacity, automation, and handling/sea-keeping, all of which increase endurance and effectiveness.[9] However, the Coast Guard has not been able to prove that assets meet key requirements through operational testing. Of these four newly fielded asset classes, the Fast Response Cutter and the HC-144 completed initial operational testing, but did not successfully demonstrate many key requirements during these tests. For example, the Fast Response Cutter did not meet its operational availability requirement due to a key engine part that failed during testing. DHS and the Coast Guard approved both assets for full-rate production noting planned improvements, but DHS and Coast Guard acquisition guidance is not clear as to when a program needs to meet minimum performance standards. For example, the guidance does not specify whether the performance standards must be met before entering full-rate production. The National Security Cutter and C4ISR programs have not completed operational testing. The Coast Guard recently conducted testing on the National Security Cutter although seven of eight vessels are completed or currently under construction. Based on early assessments and mission performance of the first three National Security Cutters, the Coast Guard has determined that design changes costing at least $140 million are necessary to meet requirements. Lastly, due to performance, maintenance, and obsolescence issues, the Coast Guard is replacing its initial C4ISR software, which cost about $413 million to develop and field, on the National Security Cutter, HC-144, and HC-130J.

[9] Seakeeping refers to a vessel's ability to withstand harsh sea states to conduct operations or survive. Sea states refer to the height, period, and character of waves on the surface of a large body of water.

Operators Report That New Assets Have Improved the Coast Guard's Capabilities Compared to Legacy Assets

Coast Guard operators and commanding officers in several locations told us that the National Security Cutter, Fast Response Cutter, and HC-144 are performing well during missions and are an improvement over the vessels and aircraft they are replacing. Operators primarily attribute the performance improvements to better endurance and communication capabilities, which help to position and keep these assets in high threat areas. Specifically, these new assets have greater fuel capacity and efficiency, engine room and boat launch automation, handling/sea-keeping, and food capacity, all of which increase endurance and effectiveness. Operators stated that these new assets, using information technology systems, can also share pictures and locations of vessels, and communicate more frequently and accurately with shore-based operational commanders than the legacy vessels being replaced. For example, operators said they now use chat rooms on secure networks in addition to radios. These chat rooms improve communication because multiple parties can communicate at the same time and messages remain available on the screen for reference. Figure 1 below compares endurance-related capabilities of the National Security Cutter, Fast Response Cutter, and HC-144 with the assets they are replacing.

Figure 1: Planned Endurance-Related Capabilities of New Coast Guard Assets Compared with Assets They Are Replacing



● 1 day

○ 1 potential day

Source: GAO analysis of Coast Guard data (data); ArtExplosion (images).

[a]According to the Coast Guard, High Endurance Cutters have a range of 9,600 nautical miles under normal circumstances. The High Endurance Cutters can achieve a 14,000 nautical mile range if they ballast their fuel tanks once the tanks are depleted, a procedure that is rarely undertaken.

[b]The seakeeping parameter for the National Security Cutter as well as the seakeeping and endurance values for the Fast Response Cutter are expressed in terms of threshold and objective values. The Coast Guard has yet to fully test the new assets.

According to operators of the National Security Cutter and the Fast Response Cutter, other new capabilities are also increasing operational effectiveness. For example, the Fast Response Cutter has a stern launch and recovery ramp—a space at the end of the vessel that stores and deploys the cutter's small boat and is open to the water. Using this ramp, according to operators, they launch the cutter's small boat in 10 to 15 seconds while the ship is actively pursuing a target. By comparison, the legacy 110' patrol boat requires a significant number of personnel to launch the cutter's small boat using a crane attached to the center of the vessel—a complex process that takes significantly longer and has potential safety risks. The National Security Cutter also has a stern launch ramp, which, in addition to launching and recovering small boats, was used by the ship's crew to hold a seized boat while they dismantled it to find drugs hidden in hard-to-reach compartments. In addition, operators told us that the larger flight deck on the National Security Cutter allows the Coast Guard to more safely operate the helicopter in rougher seas than the legacy vessel and, based upon early demonstrations, conduct unmanned aircraft system operations in conjunction with the helicopter.[10] These and other capability improvements allow Coast Guard operators to more effectively accomplish their missions.

To date, the improved capabilities of the four newly fielded assets have led to mission-related successes, according to Coast Guard asset commanders. For example, officials from Air Station Miami reported that since they began regularly operating the HC-144 in fiscal year 2011, the aircraft has had a significant role in improving the effectiveness of the Coast Guard's counterdrug and alien migrant interdiction operations in this area. In addition, one National Security Cutter completed a 160-day deployment in fiscal year 2013 during which it performed 6 drug interdictions totaling 570 kilograms of cocaine. Cutter officers stated that the ship's intelligence capabilities and the small unmanned aircraft system, which are both new capabilities that are not on the 378' High Endurance Cutter, were crucial to these drug interdictions. In addition,

[10] The National Security Cutter does not currently deploy with an unmanned aircraft system. Officials said that a small unmanned aircraft system was being demonstrated on the National Security Cutter during this mission to determine if such a solution is possible.

Coast Guard operators stated that the ability to interoperate with foreign navies during joint exercises was greatly enhanced by the communication features on the National Security Cutter.

Guidance Unclear As to When Minimum Performance Requirements Must be Demonstrated

DHS approved the Fast Response Cutter and HC-144 for full-rate production in September 2013 and October 2012, respectively. However, neither asset met all key requirements during initial operational testing. The Fast Response Cutter partially met one of six key requirements while the HC-144 met or partially met four of seven. The Fast Response Cutter was found to be operationally effective (with the exception of its cutter boat) though not operationally suitable, and the HC-144 was found to be operationally effective and suitable. As we have previously found for Department of Defense (DOD) programs, continuing with full-rate production before ensuring that assets meet key requirements risks replicating problems in each new asset until such problems are corrected.[11] DHS officials stated that they approved both assets for full-rate production because the programs had plans in place to address most major issues identified during testing, such as supplying the Fast Response Cutter with a small boat developed for the National Security Cutter. However, DHS and Coast Guard acquisition guidance are not clear regarding when the minimum performance standards should be met, such as prior to entering full-rate production. For example, DHS and Coast Guard guidance provide that the Coast Guard should determine if the capability meets the established minimum performance standards, but do not specify when this determination should be made. By comparison, DOD acquisition guidance requires that specific minimum performance standards, which are defined at the time assets are approved for system development, be met prior to entering full-rate production.

In addition, DHS and Coast Guard acquisition guidance do not clearly specify how agency officials determine when a breach occurs and what triggers the need for a program manager to submit a performance breach memo. According to DHS and Coast Guard acquisition guidance, when programs fail to meet key performance parameters, program managers are required to file breach memorandums stating that the program did not demonstrate the required capability. Even though threshold key

[11] GAO, *Missile Defense: Opportunity Exists to Strengthen Acquisitions by Reducing Concurrency,* GAO-12-486 (Washington, D.C.: Apr. 20, 2012).

performance parameters on the HC-144 and Fast Response Cutter were not met during operational testing, the Coast Guard did not report that a breach had occurred. Acquisition guidance is unclear as to whether or not failing to meet key requirements during operational testing constitutes a breach. According to Coast Guard officials, if the Coast Guard plans to re-test or re-design a deficiency in order to meet the threshold value, then a breach has not yet occurred. For example, the Fast Response Cutter small boat did not meet the threshold seakeeping requirement, but a new cutter small boat has since been tested on its own and fielded to all Fast Response Cutters. The Coast Guard plans to test this new cutter small boat with the Fast Response Cutter during follow on testing. Program officials are confident that the cutter's new small boat meets this requirement and that—therefore—a breach has not occurred. DHS acquisition guidance specifies the performance criteria used to determine whether or not a breach has occurred, but does not identify a triggering event for determining when a breach occurs. DHS's Program Accountability and Risk Management officials stated that a program breach is not necessarily related to its performance during initial operational testing, which they state is a snapshot of a single asset's performance during a defined test period. Without clear acquisition guidance, it is difficult to determine when or by what measure an asset has breached the threshold values of its key performance parameters and—therefore—when to notify DHS and certain congressional committees.

Specific information on testing outcomes for each asset follows.

Fast Response Cutter

COTF determined in July 2013 that the Fast Response Cutter, without the cutter's small boat, is operationally effective—meaning that testers determined that the asset enables mission success. The cutter's small boat was determined to not be seaworthy in minimally acceptable sea conditions and—therefore—could not support the cutter's mission set. Further, COTF determined that the Fast Response Cutter is not operationally suitable because a key engine part failed, which lowered the amount of time the ship was available for missions to an unacceptable level. Despite the mixed test results, COTF and DHS testers as well as Coast Guard program officials all agree that the Fast Response Cutter is a capable vessel. Ultimately, COTF recommended that the Coast Guard proceed to field the vessel, but also recommended that the issues with the cutter's small boat be remedied expeditiously and that follow-on operational testing be conducted once corrective actions have been implemented. Since the test, the Coast Guard has delivered a new small

boat that meets the Fast Response Cutter's needs and determined that the engine part failure was an isolated event.

The Navy also examined the extent to which the Fast Response Cutter meets key requirements. The test demonstrated that it partially met only one out of its six key requirements; the other five requirements did not meet minimum performance levels or were not tested. Table 2 displays each key performance parameter for the Fast Response Cutter, the test results, and a discussion of these results.

Table 2: Key Performance Parameter Test Results for the Fast Response Cutter

Key performance parameter (threshold requirement)	Was KPP tested?	KPP met?	Test result	Discussion
Top speed (28 knots)	No	N/A	N/A	Speed was not tested during initial operational testing due to a fuel oil leak. Speed has been assessed during preliminary acceptance trials and the vessel has reached top speed following the replacement of the original propeller. Since this change, all 9 FRCs have demonstrated at least 28 knots during other test events.
Fuel endurance (5 Days)	No	N/A	N/A	Not assessed due to inaccurate fuel level indicators.
Independent operations duration (5 days)	No	N/A	N/A	The Coast Guard's ability to independently operate the vessel was not tested. The cutter was still under warranty; thus, all maintenance was the responsibility of the shipbuilder at the time of the test.
Sea-keeping (conduct all operations in sea state 4)	Yes	No	The cutter small boat could not conduct operations in sea state 4.	Since the test, the Coast Guard has purchased new cutter small boats that are performing well according to crews. These boats have gone through their own testing and will be tested with the Fast Response Cutter during follow-on operational testing, which is scheduled to commence by the end of fiscal year 2015.
Interoperability (share information with internal and external partners)	Partial	Partial	Radios and some data transfers were successfully tested.	Communication with operational headquarters, intelligence units, external DHS, DOD and local assets, as well as other shore installations, were not tested.
Operational availability (85 percent)	Yes	No	47 percent	A key engine part failed during testing and it took 11 days to receive the part and conduct repairs, resulting in significant downtime during testing. Thus, the ship's availability to conduct missions during the test period was limited. Since testing was completed the FRC has experienced additional engine issues, including at least two generations of faulty cylinder head gaskets.

Source: GAO analysis of Navy and Coast Guard data.

The Coast Guard proactively sought to test the Fast Response Cutter early in the acquisition process, but early testing limited the ability to fully examine the vessel. For example, the Coast Guard did not test the top speed of the vessel due to a fuel oil leak. As noted above, DHS approved the Fast Response Cutter for full-rate production, but directed the program to develop corrections for the issues identified during operational testing and to verify those corrections through follow-on operational testing by the end of fiscal year 2015.

Maritime Patrol Aircraft (HC-144)

In July 2012, COTF determined the HC-144 to be operationally effective and operationally suitable and recommended that the Coast Guard continue to field the aircraft. Even though testers expressed confidence in the aircraft to meet its missions, the test also showed that the HC-144 achieved—or partially achieved— four out of seven key requirements. Table 3 contains each key performance parameter for the HC-144, the test results, and a discussion of these results.

Table 3: Key Performance Parameter Test Results for the HC-144 Maritime Patrol Aircraft

Key performance parameter (threshold requirement)	Was KPP tested?	KPP met?	Test result	Discussion
Search and rescue (arrive on scene 300 nautical miles away within 120 minutes of notification)	Yes	No	133.8 minutes	Coast Guard officials stated that they have amended operational tactics, such as prepositioning the plane for quicker launch.
Availability (71 percent)	Yes	No	65.1 percent	Due to a lack of spare parts, crews stated they have been forced to take parts from operational aircraft in order to keep other aircraft operating. The Coast Guard has recently taken steps to improve this problem, such as creating a parts catalog with the primary contractor, but the results are not yet known.
Detection (main detection target is 75 percent of close targets)	Yes	No	62.5 percent probability of detection	We have previously reported on the problems with the mission system.[a] The Coast Guard is planning to replace the mission system with a system used on Navy and Customs and Border Protection aircraft. The Coast Guard has accepted this limitation based upon other available sensors.
On scene time (minimum 3 hours)	Yes	Yes	3.95 hours	The HC-144 met the requirement.
Transportation (load and unload a standard pallet with mission system on board)	Yes	Partial	The HC-144 met range and passenger thresholds	The HC-144 met range and passenger thresholds. However, the maximum cargo and passenger loads were not tested because fully testing this parameter was not in the test plan.

Clean wing low altitude patrol speed (maximum of 180 knots when flying below 1,000 feet)	Yes	Yes	162.4 knots	The HC-144 met the requirement.
Interoperability (share information with internal and external partners)	Partial	Partial	Radios and other tools were successful but the mission system was inconsistent.	The HC-144 was able to regularly communicate with other aircraft, surface vessels, and shore installations using multiple frequencies. However, the ability to transmit data from the mission system to other Coast Guard assets and facilities was hindered by a satellite receiver that operated inconsistently.

Source: GAO analysis of Navy and Coast Guard data.

[a]GAO, *Coast Guard: Action Needed as Approved Deepwater Program Remains Unachievable*, GAO-11-743 (Washington, D.C.: July 28, 2011).

The Coast Guard did not test all key performance parameters, but is pursuing corrections following approval for production. The HC-144 did not meet the minimum performance level for detecting targets at sea with its radar and C4ISR mission system. While the mission system did not meet requirements, the aircraft was considered operationally effective because operators can supplement these systems by looking out of the windows of the aircraft. DHS approved the HC-144 for full-rate production, but directed the program to develop a plan to correct deficiencies. Coast Guard program officials told us that they are addressing the deficiencies discovered through the test as funding becomes available and through changes in operational tactics. According to the officials, the HC-144 program will likely be truncated because the Coast Guard is receiving similar assets (C-27 aircraft) from the Air Force at no cost, which would render the production decision of the HC-144 inconsequential.

National Security Cutter

The Coast Guard has some knowledge about the performance of the National Security Cutter, gained through operational deployments and preliminary test events, and the field portion of operational testing was recently conducted. The Coast Guard has been operating the vessel since 2008, conducted a preliminary operational test in 2011, and has received certifications to fully operate and maintain helicopters as well as, according to officials, to use the cutter's information technology systems on protected networks. In addition, Coast Guard program officials stated that the National Security Cutter has demonstrated most of its key performance parameters through a myriad of non-operational tests and assessments, but a few key performance parameters, such as those relating to the endurance of the vessel and its self-defense systems have yet to be assessed. Verification of an asset's ability prior to operational testing may be beneficial, but, as we have previously found, only

operational testing can ensure that an asset is ready to meet its missions.[12]

Prior to testing, the Coast Guard encountered several issues that require retrofits or design changes to meet mission needs based upon operations, certifications, and non-operational testing. The total cost of these changes is not yet known, but changes identified to date have totaled approximately $140 million, about one-third of the production cost of a single National Security Cutter. The Coast Guard must pay for all of these and future changes due to the contract terms under which the first three ships were constructed and because the warranty on the remaining ships does not protect the Coast Guard against defects costing more than $1 million. Table 4 lists the retrofits and design changes costing more than $1 million. The table does not include all changes because the Coast Guard did not have data for some of the modifications. In addition to the $140 million in identified changes, the Coast Guard has established a program to supply the National Security Cutter with cutter small boats for an additional $52.1 million because the small boats originally planned to be delivered with the vessel did not meet requirements.

Table 4: Retrofits and Design Changes on the National Security Cutter Class Costing over $1 Million as of December 2013

Retrofits and design changes	Cost (in millions)
Primary information system replacement	$88.5
Structural enhancements	to be determined[a]
Remove Aircraft Ship Integrated Secure and Traverse tracks in flight deck[b]	to be determined
Gantry crane that aids in launching small boats from stern ramp	$31
Side davit crane for small boat operations	$12.5
Two ammunition hoists	$6.3
Breathing apparatus replacement	$1.6
Total cost	**$140**[c]

Source: GAO presentation of Coast Guard data.

Notes: The Coast Guard reported these numbers for all eight hulls. However, for some items, such as the information system replacement, the costs primarily cover retrofitting some or all of the first four hulls.

[12] GAO, *Navy Shipbuilding: Significant Investments in the Littoral Combat Ship Continue Amid Substantial Unknowns about Capabilities, Use, and Cost*, GAO-13-530 (Washington, D.C.: July 22, 2013).

[a]The work package is being developed and, according to program officials, initial estimates are about $19 million per vessel.

[b]In January 2011, Coast Guard officials canceled the Aircraft Ship Integrated Secure and Traverse—a system intended to automate the procedure to land, lock down, and move the HH-65 helicopter from the deck to the hangar on the National Security Cutter—after significant deficiencies were identified during testing conducted by the U.S. Naval Air Warfare Center. The Coast Guard invested approximately $27 million to install the system on three National Security Cutters, including putting tracks in the flight deck that must now be removed.

[c]Several funding accounts, including acquisition funding and operations and maintenance funding, are being used for these corrections.

Additional changes may be needed because the Coast Guard has not fully validated the capabilities of the National Security Cutter, though seven vessels have been delivered or are in production. This situation could result in the Coast Guard having to spend even more money in the future, beyond the current changes, to ensure the National Security Cutter fleet meets requirements and is logistically supportable. For example, the cutter is experiencing problems operating in all intended environments. The National Security Cutter requirements document states that the cutter will conduct assigned missions in a full spectrum of climate and maritime weather conditions, to include tropical, dry, temperate, and arctic climates. This document adds that although the National Security Cutter will operate in regions in which ice is frequently encountered, it will not have an ice-breaking mission. However, Coast Guard engineering reports from December 2012 discuss problems operating in both warm and cold climates. These reports discuss several warm weather problems, including cooling system failures, excessive condensation forming "considerable" puddles on the deck of the ship, and limited redundancy in its air conditioning system—which, among other things, prevents the use of information technology systems when the air conditioning system needs to be serviced or repaired. In addition, according to operational reports, during a recent deployment, the Commanding Officer of a National Security Cutter had to impose speed restrictions on the vessel because of engine overheating when the seawater temperature was greater than 77 degrees. Cold climate issues include the National Security Cutter not having heaters to keep oil and other fluids warm during operations in cold climates, such as the arctic. Further, Coast Guard operators state that operating near ice must be done with extreme caution since the ice can move quickly and can "spell disaster" if the National Security Cutter comes in contact with it. Senior Coast Guard officials acknowledged that there are issues to address and stated that the Coast Guard has not yet determined what, if any, fixes are necessary and that it depends on where the cutter ultimately operates.

C4ISR Information Technology Systems

The Coast Guard does not plan to operationally test the C4ISR system's key performance parameters. The Coast Guard initially planned to test the C4ISR system separately from the operational testing of its planes and vessels, such as the HC-144 and Fast Response Cutter. Coast Guard officials then decided to test the C4ISR system in conjunction with the planes and vessels to save money and avoid duplication. However, the C4ISR system was not specifically evaluated during the HC-144 and Fast Response Cutter tests because testing the effectiveness and suitability of the C4ISR system was not fully integrated into the assets' test plans. For example, the HC-144 was unable to meet its key requirement for detection, which uses the C4ISR software in conjunction with the HC-144's radar and other sensors. In addition, COTF found that the HC-144's ability to detect and share target data was cumbersome and time-consuming.[13] These results were not evaluated against the C4ISR system's requirements. While testing the C4ISR system at the same time as the assets can work, this strategy is not consistent with Coast Guard acquisition guidance if the C4ISR system's key performance parameters are not tested. Acquisition guidance states that the Coast Guard should test the C4ISR system, as it does with all major acquisitions, to ensure it is operationally effective, operationally suitable, and meets its basic requirements. By not testing the system, the Coast Guard has no assurance that it is purchasing a system that meets its operational needs. In responding to a draft of this report, the Coast Guard stated that it now plans on testing the C4ISR system's key performance parameters during follow on testing for the National Security Cutter.

The Coast Guard has also encountered several issues with the C4ISR system that have required significant and costly changes, including replacing the original system. The original C4ISR system, which cost $413 million to develop and field, was designed and built as a tightly integrated system bundling large commercial and government software programs with contractor-proprietary software, which made it difficult and costly to maintain—primarily due to its unique characteristics and large size. For example, according to program officials, the Coast Guard relied on the contractor to conduct even basic system updates, which required new software code because of how the system was integrated.

[13] For more information on the common operational picture, see GAO, *Clarifying the Application of Guidance for Common Operational Picture Development Would Strengthen Program,* GAO-13-321 (Washington, D.C.: Apr. 25, 2013).

As a result, in 2010, the Coast Guard began replacing the C4ISR software in two steps. First, to address immediate issues, the Coast Guard separated the weapons and command and control/navigation portions of the software but maintained the ability to share data between these portions of the system. Second, the Coast Guard has developed and is now installing a new software package that shares data between proven systems, which makes the system easier to maintain. For example, the communication/navigation system is largely based upon the Navy's Global Command and Control System, a long-standing system maintained by DOD. In addition, the combat system is adapted from the Navy's Aegis system. While the previous version of the C4ISR system also contained this software, the Coast Guard's new configuration keeps these systems independent to improve performance and maintenance, while still allowing data to be passed back and forth between the software packages within the system.

The Coast Guard has spent nearly $2 million to develop this new system, called Seawatch, which will have to be further developed for each asset on which it is fielded. For example, it will cost an additional $88.5 million in acquisition funds to purchase the software and hardware needed to field the system on the National Security Cutters. In addition, the Coast Guard is replacing the mission systems on the HC-144 and HC-130J airframes with a proven Navy system to address obsolescence, maintenance, and performance issues. Initial cost estimates are being developed for this project.

Cost Increases Are Consuming Funding and Affordability Issues Have Not Been Addressed or Accurately Represented

As acquisition program costs increase across the portfolio, consuming significant amounts of funding, the Coast Guard is farther from fielding its planned fleet today than it was in 2009, in terms of the money needed to finish these programs. In 2009, we found that the Coast Guard needed $18.2 billion to field its original baseline,[14] but it now needs $20.7 billion to finish fielding these same assets. For example, the estimated funding needed to complete the National Security Cutter increased by $2.2 billion since original estimates. Given these cost increases and funding constraints, the Coast Guard and key stakeholders have acknowledged that the Coast Guard's acquisition portfolio is not affordable but, thus far, efforts to address this issue have not led to the significant trade-off

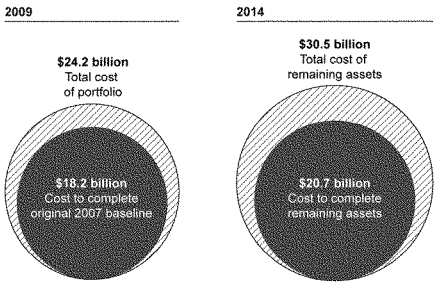
[14] GAO, *Coast Guard: As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach*, GAO-09-682 (Washington, D.C.: July 14, 2009).

decisions needed to improve its affordability. To balance its portfolio, Coast Guard budget officials stated that they use the 5-year Capital Investment Plan. However, this plan presents data in a manner that makes the portfolio appear more affordable than it really is. For example, in the Fiscal Years 2014 through 2018 Capital Investment Plan, the Coast Guard proposed purchasing two Fast Response Cutters per year, instead of four or six per year, but did not capture the up to $800 million in total cost increases associated with this reduced quantity.

Cost Increases Are Consuming Funding

As program cost increases consume significant amounts of funding, the Coast Guard is farther from fielding its planned fleet today than it was in 2009, in terms of the money needed to finish these programs. Figure 2 shows the total cost of and cost to complete the Coast Guard's original 2007 baseline in 2009 and 2014.

Figure 2: The Total Cost of and Cost to Complete the Coast Guard's Original 2007 Baseline in 2009 and 2014



Source: GAO analysis of Coast Guard data.

Note: In current/then-year dollars. This means that numbers have not been normalized for inflation.

This is the result of $11.3 billion in cost increases realized since 2007 for these programs, according to the most recent program baselines. For example, the Coast Guard experienced a $2.2 billion cost increase to the National Security Cutter project since the 2007 estimate. In addition, the anticipated cost to complete the Offshore Patrol Cutter has increased by $4 billion since 2007 and, therefore, will also consume a significant portion of future funding. Since our last review, the Coast Guard, in

conjunction with DHS, has updated many of its cost estimates.[15] Senior Coast Guard acquisition officials told us that many of the cost increases are due to changes from preliminary initial estimates and that they expect to meet their current cost estimates. However, the Coast Guard has yet to construct the largest asset in the portfolio—the Offshore Patrol Cutter—and if the planned costs for this program increase, difficulties in executing the portfolio as planned will be further exacerbated.

Decision Makers Have Yet to Address Ongoing Affordability Concerns

Coast Guard, DHS, and OMB officials have acknowledged that the Coast Guard cannot afford to recapitalize and modernize its assets in accordance with the current plan at current funding levels. According to budget documents, Coast Guard acquisition funding levels have been about $1.5 billion for each of the past 5 years and the President's budget requests $1.1 billion for fiscal year 2015. At the same time, DHS is struggling to match acquisition needs with available resources across all of its component agencies, including the Coast Guard. Coast Guard acquisitions comprise about 16 percent of the total DHS acquisition budget. In a December 2012 memo signed by the Chief Financial Officer, DHS estimated that funding requirements for all of its major acquisitions exceed available resources by 30 percent.[16] OMB officials have also told us that they recognize that the Coast Guard's acquisition portfolio is not affordable at current funding levels given the fiscal constraints faced by all federal agencies.

Efforts are underway to address this issue, but, so far, these efforts have not led to the significant trade-off decisions needed to improve the affordability of the Coast Guard's portfolio. A senior Coast Guard official recently stated that external reviews of the Coast Guard's planned acquisitions have been conducted by DHS and White House organizations, such as the President's Policy Councils, and, often, additional demand for Coast Guard missions is identified, rather than deciding upon reductions. OMB officials stated that these reviews are not conducted in conjunction with budget policy and do not incorporate capital investment strategies. Examples of the steps OMB, DHS, and the Coast

[15] GAO-12-918.

[16] GAO, *Homeland Security Acquisitions: DHS Could Better Manage Its Portfolio to Address Funding Gaps and Improve Communications with Congress*, GAO-14-332 (Washington, D.C.: April 17, 2014).

Guard have taken to address the affordability of the Coast Guard's acquisition portfolio are described below:

- OMB conducts annual performance and mission based reviews of the Coast Guard, in conjunction with other White House staff, as part of the annual budget process. OMB officials told us that there has been little progress in efforts to identify the trade-offs that would make the recapitalization portfolio more affordable, such as adjusting the quantities or capabilities of assets needed to meet mission needs. The officials stated that reviews regarding the fiscal year 2015 budget process were focused heavily on the sequestration funding caps and, therefore, did not focus on long term issues.

- DHS has conducted two annual Coast Guard acquisition portfolio reviews, but according to DHS program reviewers, the most recent review—scheduled for September 2013—was cancelled as a result of the lapse in federal government appropriations. According to a DHS official who led the reviews, the earlier reviews provided updates to DHS leadership on the status of the Coast Guard's acquisitions and efforts to address affordability, but no trade-off decisions were made to reduce planned quantity or capability. DHS officials told us that the Secretary recently directed a review of the Coast Guard's acquisition portfolio over the next 20 years. We have previously reported that DHS has taken steps to address affordability issues at acquisition decision events, but it has rarely directed affordability trade-offs.[17] In the case of the Fast Response Cutter, DHS approved the vessel for full-rate production in September 2013 even while acknowledging that the cutter faces affordability challenges and that the program did not meet DHS's requirement to verify that sufficient funding is available. DHS has proposed two consecutive budgets, one before and one after the production decision, with a funding level for the Fast Response Cutter that supports purchasing two cutters per year rather than the four cutters per year that form the basis for the cost and schedule estimates in the asset's acquisition program baseline.

- We have previously reported on the Coast Guard's efforts to address affordability and recommended that the Coast Guard develop a plan to match needs and resources.[18] In response to our recommendation

[17] GAO-14-332.

[18] GAO-11-743 and GAO-12-918.

in September 2012, DHS stated that the Coast Guard is developing a process to make trade-off decisions that will result in a portfolio that contains a balanced mix of assets that meets mission needs within affordability constraints. However, the Coast Guard has yet to document how this new process will work and it is not clear who in the Coast Guard has the authority to make trade-off decisions. Officials who support the Executive Oversight Council stated that the goal is to better inform Council members so that they understand the full consequences of annual budget decisions. These officials told us that they are striving to establish this process in time to inform the fiscal year 2016 budget. While the Coast Guard continues to concur with our previous recommendation that the Executive Oversight Council should be closely involved in making trade-off decisions to balance the portfolio, the Coast Guard could not provide documentation that this group has made any decisions to balance needs and funding as of May 2013. In addition, Coast Guard budget officials told us that the Executive Oversight Council does not have full authority to make these decisions, as final decisions are made by the Commandant, in conjunction with the Investment Review Board.

Capital Investment Plan Does Not Capture the Full Effect of Annual Budget Decisions

The Coast Guard's Fiscal Years 2014 through 2018 Capital Investment Plan complies with the law specifying its contents.[19] Each year, the Coast Guard is required to submit a 5-year Capital Investment Plan to certain congressional committees when the President's budget is submitted. This plan is required to include, among other things, the appropriations in the current budget, projected funding levels for each of the next five fiscal years, and estimated total cost and schedule in current program baselines. To date, the Coast Guard has not submitted the Fiscal Years 2015 through 2019 plan, which was due in conjunction with the President's Budget delivered in March 2014.

The law does not require the Coast Guard to include total cost of its projects at planned funding levels. In the Fiscal Years 2014 through 2018 Capital Investment Plan, cost and schedule totals did not match the funding levels presented for many programs. For example, the plan proposed lowering the Fast Response Cutter procurement to two per year but still showed the total cost and schedule estimates for purchasing three or six per year—suggesting that this reduced quantity would have

[19] 14 U.S.C. § 663.

no effect on the program's total cost and schedule. Given that decreasing the quantity purchased per year would increase the unit and total acquisition cost, the Coast Guard estimated that the decision to order fewer ships will likely add $600 million to $800 million in cost and 5 years to the cutter's final delivery date, but this was absent from the plan. Coast Guard officials stated that they are required to report the assets' cost and schedule per the acquisition program baseline. However, these officials also acknowledged that this plan does not consistently reflect current cost and schedule estimates or the effects of the trade-offs that are made as part of the annual budget cycle. Reporting total cost and delivery dates that do not reflect funding levels could lead to incorrect conclusions about the effect of these decisions on the program's total cost and schedule. That is, Congress may conclude that the Coast Guard's acquisition portfolio is more affordable than it actually is.

Future Capabilities Uncertain as Coast Guard Makes Annual Budget Decisions; Alternatives Could Improve Outlook

The Coast Guard is repeatedly delaying and reducing its capability through its annual budget process, but does not know the extent to which its mission needs can be tailored and still achieve desired results. Thus, its ability to meet future needs is uncertain. For example, the Coast Guard has already experienced a gap in heavy icebreaking capability and is falling short of meeting current and future major cutter operational hours. These capability gaps may persist as funding replacement assets will remain difficult at current funding levels. A key indication of this situation is that several current and additional acquisitions will have to compete for a small percentage of the Coast Guard's acquisition funding between 2018 and 2032 while the Offshore Patrol Cutter is being built. This asset will likely absorb about two-thirds of the Coast Guard's acquisition funding during this timeframe. The Coast Guard does not have a long term plan that demonstrates how it will maintain today's service level and meet identified needs. While making annual budget decisions, the Coast Guard is pursuing some cost effective means of providing specific capabilities, though it has yet to fully realize potential savings.

Gaps Are Materializing as the Coast Guard Shapes Its Capability through the Budget Process

As the Coast Guard continues to make decisions through the budget process, it is experiencing capability gaps in the following areas:

- **Icebreakers**—According to program officials, due to funding constraints, the Coast Guard chose not to invest in either of its heavy icebreakers as they approached the end of their service lives. Thus, both heavy icebreakers were out of service from 2010 to 2013 and the Coast Guard could not complete missions, such as resupplying a

science laboratory in Antarctica. The Coast Guard has recently returned one of these heavy icebreakers back to service, but still has one fewer heavy icebreaker than it has historically operated and several fewer than it needs, according to the Coast Guard's June 2013 heavy icebreaker mission need statement.

- **River Buoy Tenders**—The Coast Guard is also facing a gap in its river buoy tender fleet and the Coast Guard has yet to formalize an acquisition project to replace this fleet, which is estimated to cost over $1.5 billion.

- **Drug Interdiction Performance**—The Coast Guard and DHS Inspector General recently reported that the Coast Guard was not able to meet the target for its drug interdiction mission performance measure for four of the last five years because of potential factors including the advancing age and deteriorating condition of the Coast Guard's cutter fleet. [20] For more information, we will be issuing a report this spring that discusses the resources provided by the Coast Guard for drug interdiction operations.

- **2013 Major Cutter and Patrol Boat Hours**—The Coast Guard is also currently experiencing a performance gap in its major cutter and patrol boat fleets. The Coast Guard's major cutter fleet—comprised of the National Security Cutter and the in-service high and medium endurance cutters—must operate 136,620 hours per year to meet its missions. In fiscal year 2013, partly due to sequestration, the Coast Guard's major cutter fleet operated 99,342 hours—falling 27 percent short of its goal. The Coast Guard estimates that it would have been 6,078 hours short of its needs even if sequestration was not in effect. The Coast Guard's patrol boat fleet operated for 178,000 hours last year, falling short of its 247,000 hour goal. The Coast Guard would have also fallen short of this goal even if sequestration were not in effect.

In addition, there is little room in its budget to deal with unexpected developments in operations. For example, in 2012, the Commandant wrote about the emerging need for established forces in the Arctic, but

[20] DHS Inspector General, *Independent Review of U.S. Coast Guard's Reporting of FY 2013 Drug Control Performance Summary Report*, OIG-14-35 (Washington, D.C.: Feb. 2014).

the Coast Guard's major cutters may need additional equipment to operate in these areas.

The Coast Guard may fall even further below its operational hour goal for major cutters as the Offshore Patrol Cutter is being built. The Coast Guard has stated that delays in the delivery of the Offshore Patrol Cutter will lead to greater operational capacity shortfalls due to increased downtime for maintenance and other issues that reduce the current medium endurance cutters' operational availability.[21] For example, in 2013, three 210' medium endurance cutters had to be put in a dry dock for emergency hull repairs. Coast Guard engineers stated that repairs like these are likely to become more frequent as these assets age.

Even after the Coast Guard builds the Offshore Patrol Cutter, it may not achieve the 136,620 hour goal. To meet this goal, the Coast Guard needs the National Security Cutter and the Offshore Patrol Cutter to operate for a total of 4,140 hours each year. The National Security Cutter is currently operating 3,330 hours per year and the Coast Guard has a plan to increase this to 3,830 per year by fiscal year 2017. However, Coast Guard operators have significant concerns about maintaining the vessel at this high tempo, primarily due to logistics and personnel concerns. According to officials, the Coast Guard is still planning to operate the National Security Cutter and Offshore Patrol Cutter 4,140 hours per year by using a crew rotation concept. We are currently conducting a review of National Security Cutter operations, including the status of implementing rotational crewing.

As the budget process takes the place of a knowledge-based acquisition process, the Coast Guard is repeatedly delaying and reducing its portfolio on an annual basis to address budget constraints, rather than pursuing an affordable set of long-term needs.[22] This approach puts pressure on future budgets and delays fielding capability, which may reduce planned performance. Despite these delays, the Coast Guard continues to follow its current plan, but does not know the extent to which this plan can be

[21] GAO, *Coast Guard: Legacy Vessels' Declining Conditions Reinforce Need for More Realistic Operational Targets,* GAO-12-741 (Washington, D.C.: July 31, 2012).

[22] Our best practices work shows that there are three critical junctures at which firms must have knowledge to make large investment decisions. See GAO, *Best Practices: Using a Knowledge-Based Approach to Improve Weapon Acquisition,* GAO-04-386SP (Washington, D.C.: January 2004).

tailored through the budget process and still achieve desired results. Thus, the Coast Guard does not know what capability it will be able to provide and whether or not this capability will meet mission needs. We have previously found that by continuing to pursue only a portion of planned capability without re-evaluating the portfolio as a whole, the Coast Guard further increases the risk that it may not accomplish its mission needs.[23] According to best practices, agencies should implement a knowledge-based acquisition approach to pursue a long term set of affordable needs. We have previously found that acquisitions that continue without this knowledge frequently experience poor outcomes.[24] Without such an approach, the Coast Guard does not have reasonable assurance that its assets are planned to meet established cost, schedule, and performance baselines, in turn leading to sound investment decisions.[25]

The Coast Guard Has No Long-Term Plan as Cutter Delays Bring About an Era of Continuous Acquisition

If funding levels remain constant, several current and additional acquisitions will have to compete for a small percentage of the Coast Guard's acquisition funding between 2018 and 2032 while the Offshore Patrol Cutter is being built. According to current funding levels and cost and schedule estimates, the Offshore Patrol Cutter will absorb about two-thirds of the Coast Guard's acquisition funding during this timeframe. Primarily due to a 14 year delay to the Offshore Patrol Cutter and a 10 year delay to the Fast Response Cutter realized since 2007, the Coast Guard is now in the position of having to continually rebuild its assets rather than rapidly modernize as was originally planned. Thus, the Coast Guard has a number of significant additional programs that will require funding while the Offshore Patrol Cutter, Fast Response Cutter, and other assets in the current portfolio are still being built. The Coast Guard is in the process of assessing its needs in many of these areas. These potential acquisitions fit into three categories:

[23] GAO-12-918.

[24] GAO, *Defense Acquisitions: Major Weapon Systems Continue to Experience Cost and Schedule Problems under DOD's Revised Policy,* GAO-06-368 (Washington, D.C.: Apr. 13, 2006).

[25] GAO, *Best Practices: Better Matching of Needs and Resources Will Lead to Better Weapon System Outcomes,* GAO-01-288 (Washington, D.C.: Mar. 8, 2001).

- **Surface Fleet Recapitalization**—This project includes conducting a service life extension program for the 13 270' medium endurance cutters, replacing or extending the Coast Guard's 87' coastal patrol boat fleet (73 cutters), and funding other sustainment projects for vessels that are in-service, such as the Coast Guard's large fleet of river buoy tenders. As discussed earlier, the Coast Guard is also looking into additional icebreaker investments beyond the current single heavy icebreaker program, as the medium icebreaker will also need to be replaced or extended during this period.

- **Aircraft Recapitalization**—The primary aircraft need will be replacing or extending the MH-60 and MH-65 helicopter fleets, which approach a life-limiting milestone between 2022 and 2026. Regardless of the future path, significant acquisition dollars will be required to maintain annual flight hours for the next 20 years, according to Coast Guard program officials. Another significant project, these officials added, will be replacing the C4ISR system on the Coast Guard's aircraft—some of which need new systems while other systems need to be replaced due to obsolescence. According to Coast Guard program officials, the prototypes are planned to be completed by the end of fiscal year 2016, at which point the new mission systems will need funding for production.

- **Additional Costs for New Assets**—As with other cutter classes, the Fast Response Cutter and the National Security Cutter will need to undergo planned repair and maintenance work when the respective fleets reach their service life midpoints beginning in 2025 and 2028, respectively. The Coast Guard cannot skip these maintenance periods; they are needed to overhaul major components because older equipment is not supported over a cutter's 30 year service life. In addition, the future operational bases from which the Offshore Patrol Cutter will operate need an estimated $431 million for upgrades to intended home ports.

The Coast Guard is not currently required to develop a long-term fleet modernization plan that considers its current service levels for the next 20 years in relation to its expected acquisition funding. Without such a plan, the Coast Guard does not have a mechanism to aid in matching its requirements and resources. For example, the Coast Guard does not know if it can meet its other acquisition needs while the Offshore Patrol Cutter is being built, which according to current plans will conclude in about 20 years. In addition, as we have previously found, the Coast Guard is deferring costs—such as purchasing unmanned systems or replacing its Buoy Tender fleet—that could lead to an impending spike in

the requirement for additional funds.[26] The Coast Guard has no method in place to capture the effects of deferring such costs on the future of the acquisition portfolio.

The Coast Guard's acquisition guidance supports using a long range capital planning framework. According to OMB capital planning guidance referenced by the Coast Guard's Major Systems Acquisition Manual, each agency is encouraged to have a plan that defines its long-term capital asset decisions. This plan should include, among other things, (1) an analysis of the portfolio of assets already owned by the agency and in procurement, (2) the performance gap and capability necessary to bridge the old and new assets, and (3) justification for new acquisitions proposed for funding. OMB officials stated that they support DHS and the Coast Guard conducting a long term review of the Coast Guard's acquisitions to assess the capabilities it can afford.

Examples of other fleet modernization plans include the Navy's annual naval vessel construction plan (also known as the Navy's long range shipbuilding plan), which reflects the quantity and categories of assets that the Navy needs to buy as well as the total number of assets in operation for each year. While we have previously noted challenges associated with the Navy's plan, we also observed that such a plan is beneficial in that it lays out a strategic approach for decision making. A long-term plan can enable trade-offs to be seen and addressed in advance, leading to better informed choices and making debate possible before irreversible commitments are made to individual programs. Without this type of plan, decision makers do not have the information they need to better understand the Coast Guard's long term outlook.[27] In its naval vessel construction plan, the Navy also assesses capability gaps and planned construction over the short term, middle term and long term—each 10-year periods in the plan. The Secretary of Defense transmits the plan to Congress to aid in decision making.[28] As a result, the Navy has some knowledge of its future funding challenges. For example, the Congressional Budget Office estimates that if the Navy

[26] GAO-12-918.

[27] GAO, *Defense Acquisitions: Challenges Associated with the Navy's Long-Range Shipbuilding Plan,* GAO-06-587T, (Washington, D.C.: Mar. 30, 2006).

[28] Department of Defense, *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2014* (Washington, D.C.: May 2013).

continues to receive the same percentage of DOD funds for shipbuilding as it has in the past, the Navy can only fund 70 percent of the current long range plan. When we discussed such an approach with the Coast Guard, the response was mixed. Some Coast Guard budget officials stated that such a plan is not worthwhile because the Coast Guard cannot predict the level of funding it will receive in the future. However, other Coast Guard officials support the development of such a plan, noting that it would help to better understand the effects of funding decisions. Without such a plan, it will remain difficult for the Coast Guard to fully understand the extent to which future needs match the current level of resources and its expected performance levels—and capability gaps—if funding levels remain constant.

The Coast Guard Has Been Pursuing Less Expensive Means of Filling Some Capability Gaps

The Coast Guard is currently pursuing cost effective alternatives that could begin the process of building a viable long term modernization plan.

- **Cutter-Based Unmanned Aircraft Systems—**The Coast Guard is in the process of demonstrating a small unmanned aircraft system on the National Security Cutter and, to date, these demonstrations have shown that a smaller system is feasible. As opposed to the 2007 estimate of $503 million, the Coast Guard preliminarily estimates that it can outfit each of the planned eight National Security Cutters with two unmanned aircraft and a control station on each vessel for $48 million. However, according to Coast Guard officials, it is too early to fully understand the costs. Once this system is purchased, the Coast Guard still plans to pursue a bigger solution in conjunction with the Navy that meets all of the Coast Guard's requirements.

- **Land-Based Unmanned Aircraft System—**The Coast Guard has also begun a partnership with U.S. Customs and Border Protection to share and operate that component's 10 land-based unmanned aircraft systems. In the past year, the Coast Guard has been able to use this asset to conduct over 500 hours of surveillance for Coast Guard missions and officials expect that this number may increase. While this program is growing, the Coast Guard continues to pursue its own land-based unmanned aircraft.

- **Heavy Icebreaker—**The Coast Guard is working closely with international and U.S. agency partners in gaining knowledge to support its heavy icebreaker acquisition. So far, while there are more than 10 U.S. agencies that have requirements for a heavy icebreaker,

such as the Navy and National Science Foundation, no plans have emerged for funding this vessel.

Conclusions

As the Coast Guard's newest assets move through operational testing they are demonstrating capability, but problems have been identified. This is not unexpected; identifying problems is the purpose of the testing. In general, project and acquisition oversight officials evaluate these test results, among other data, and make a business case as to whether the government is taking on undue risk by mass producing these assets. This approach can be reasonable, but the parameters for making this case—including defining when an asset must meet a minimum level of acceptable performance prior to this decision and determining at what point a breach occurs—are not clearly set forth in Coast Guard or DHS guidance. Moreover, without a defined point in the acquisition process by which the Coast Guard must satisfy minimum requirements, the breach process, with regards to performance, loses meaning. Further, the Coast Guard no longer plans to operationally test the C4ISR system—always intended to be a linchpin of the recapitalization program—even though such testing is required of all major acquisitions. Without testing to ensure that these systems meet minimum performance standards, the Coast Guard cannot ensure that they meet mission needs and that the taxpayer receives a good value for the investment.

As the Coast Guard has continued to refine cost estimates for its major acquisitions, it is realizing that the cost of its acquisition portfolio has grown and is now much greater than initially planned. This increased cost is consuming a large portion of the Coast Guard's acquisition budget. Our previous recommendations, regarding the need for a process to make the trade-off decisions needed to balance resources and needs, still stand.[29] In the meantime however, the extent of expected costs—and how the Coast Guard plans to address them through budget trade-off decisions—is not being clearly communicated to Congress. The mechanism in place for reporting to certain congressional committees, the Capital Investment Plan, does not reflect the full effects of these trade-off decisions on the total cost and schedule of its acquisition programs. This information is not currently required by statute, but without it, decision makers are unable to understand the full extent of funding that will be required to complete the Coast Guard's planned acquisition programs.

[29] GAO-11-743 and GAO-12-918.

A pressing concern the Coast Guard faces is that the growing affordability gap for its major acquisitions will be exacerbated by impending requirements and capability needs. Annual budget decisions and the cost saving measures the Coast Guard is pursuing may be sufficient for the short term, but they do not position the Coast Guard to address future needs. In other words, short term budget decisions may not amount to a good long term investment strategy. Without a long term plan that sets forth needed capabilities and the funding it will take to meet them, the Coast Guard is not well positioned to identify how it will meet these mission needs. A long term plan of this nature is particularly critical in light of the looming Offshore Patrol Cutter procurement, which is currently estimated to account for about two-thirds of the acquisition budget.

Matter for Congressional Consideration

To help ensure that it receives accurate information on the full effect of funding decisions on acquisition programs, Congress should consider amending the law that governs the 5-year Capital Investment Plan to require the Coast Guard to submit cost and schedule information that reflects the impact of the annual President's budget request on each acquisition across the portfolio—in addition to the current practice of reporting the cost and schedule estimates in current program baselines.

Recommendations for Executive Action

To ensure that Congress and other decision makers are properly informed regarding the status of programs, we recommend that the Secretary of Homeland Security and the Commandant of the Coast Guard revise their acquisition guidance by taking the following two actions:

- Specify when minimum performance standards should be met, such as prior to entering into full-rate production.
- Clarify the performance data that should be used to assess whether or not minimum performance criteria have been met, prior to full-rate production, to determine whether a performance breach has occurred.

To ensure that the Coast Guard's C4ISR system meets mission needs, we recommend that the Commandant of the Coast Guard take the following action:

- Assess the operational effectiveness and suitability of the C4ISR system by fully integrating this assessment into other assets' operational test plans or by testing the C4ISR program on its own.

To help the Coast Guard improve the long-term outlook of its portfolio, we recommend that the Commandant of the Coast Guard take the following action:

- Develop a 20-year fleet modernization plan that identifies all acquisitions needed to maintain the current level of service and the fiscal resources necessary to build the identified assets. The plan should also consider trade-offs if the fiscal resources needed to execute the plan are not consistent with annual budgets.

Agency Comments and Our Evaluation

We provided a draft of this report to DHS for review and comment. In its comments, DHS concurred with all of our recommendations. DHS's written comments are reprinted in appendix II. We also provided draft sections of the report to OMB and COTF, which provided us with technical comments via email; we incorporated their comments as appropriate.

Regarding the first two recommendations, on the timing of reporting and actions to be taken when assets do not meet performance standards in testing, DHS stated that it plans to make changes to its acquisition guidance by June 30, 2015.

In concurring with the third recommendation, regarding the testing of the C4ISR system, DHS noted that it plans to provide clearer guidance in the next update of its acquisition policy, currently scheduled for June 30, 2015. Additionally, DHS stated that it still plans to test the C4ISR system in conjunction with the vessels and aircraft on which the system is installed. This strategy would be acceptable as long as the Coast Guard incorporates the key performance parameters specifically related to the C4ISR system into the vessel and aircraft test plans. In its response, DHS disagreed in general with our description of the C4ISR system as not meeting goals, noting that, according to the Coast Guard, the original system was closed as a result of obsolescence and not due to performance and maintenance problems. While it is true that much of the original system—developed as part of Deepwater—is obsolete because it was inextricably linked to the commercial vendor's proprietary software, performance problems were also an issue. We have previously reported on these problems, such as assets not having the capability to share data as envisioned and the system needing to be restarted during operations. In short, the system of systems capability that was the original intent has not been achieved. While DHS states that the C4ISR program is one example of where the Coast Guard made tough decisions to provide the

greatest capability of equipment while using the least amount of dollars, the Coast Guard invested $413 million to develop and field the original system that is now being replaced with Seawatch.

While DHS concurred with our fourth recommendation to develop a 20-year fleet modernization plan, the response does not fully address our concerns or set forth an estimated date for completion, as the response did for the other recommendations. DHS stated that the Coast Guard values long term planning and can assemble a profile of the anticipated service lives of the various assets and project this information to the future. However, the response also reaffirmed the very reason we made this recommendation—that trade-off decisions considering the cost, schedule, and performance of acquisitions are made during the annual budget process. There is no evidence that these short-term budget decisions will amount to a good long-term strategy and, as we have previously noted, the Coast Guard's annual, budget-driven approach creates continual churn as program baselines must continually re-align with budget realities instead of budgets being formulated to support program baselines. In the case of the Coast Guard, this budget-driven process is pushing tough trade-off decisions—between capability and cost—into the future. Without a long-term plan, as we have recommended, no one knows what taxpayers are ultimately going to get for their approximately $1.5 billion annual investment in Coast Guard acquisitions. We continue to believe that a properly constructed 20-year plan is necessary to illuminate what is feasible in the long term and will also provide a basis for informed decisions that align the Coast Guard's needs and resources.

DHS and the Coast Guard also provided technical comments that we incorporated into the report as appropriate.

We are sending copies of this report to the Secretary of the Department of Homeland Security, Commandant of the Coast Guard, and Director of the Office of Management and Budget. In addition, the report is available on our website at http://www.gao.gov.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 13 days from the report date. At that time, we will send copies to your offices. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-4841 or mackinm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

Michele Mackin

Michele Mackin
Director, Acquisition and Sourcing Management

Appendix I: Scope and Methodology

In conducting this review, we relied in part on the information and analysis in our past work, including reports completed in 2008 through 2012. Additional scope and methodology information on each objective of this report follows.

To assess how selected assets are performing operationally and to what extent they are achieving desired performance levels in testing, we selected key assets that are being used in operations that were a part of the original 2007 baseline—the Maritime Patrol Aircraft (HC-144), Fast Response Cutter, National Security Cutter, and the Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems—and reviewed test reports and operational data for these assets. We also reviewed the Coast Guard's Major Systems Acquisition Manual and Department of Homeland Security (DHS) Acquisition Management Directive 102-01 to review regulations and directions for operational testing. We assessed operational test reports for the HC-144 and Fast Response Cutter to determine what issues were discovered during testing and interviewed officials from the DHS's Science and Technology directorate and the Navy's Commander, Operational Test and Evaluation Force (COTF) to discuss the results and limitations of these tests and plans for future testing. For the National Security Cutter and C4ISR programs, we reviewed preliminary tests and changes being made to the systems as a result of knowledge gained through early testing or operations that has led to retrofits or design changes. We compared the results of these tests and operational data with operational requirements documents for each program to determine if these assets are performing as planned. We interviewed Coast Guard officials with the capabilities and resource directorates, and officials and operators with the National Security Cutter, Fast Response Cutter, HC-144, and C4ISR programs to gain a greater understanding of operational challenges and how they are being addressed. We met with National Security Cutter operators at U.S. Coast Guard Base Alameda in Alameda, California and we met with the District Commander for the Coast Guard's Seventh District, Fast Response Cutter operators at Coast Guard Sector Miami, and HC-144 operators at U.S. Coast Guard Air Station Miami in Miami, Florida and discussed the C4ISR operations aboard each of these assets to discuss how these assets are performing operationally. We interviewed contractor representatives from Huntington Ingalls Industries for the National Security Cutter and Bollinger Shipyards for the Fast Response Cutter and toured their respective shipyards to discuss issues related to the production of these assets.

To determine the current cost of the Coast Guard's acquisition portfolio as well as plans to fund its assets, we reviewed the Coast Guard's budget and capital investment plan and identified the programs that are currently in its acquisition portfolio. Based upon our definition, the Coast Guard's current acquisition portfolio consists of all major acquisitions that are planned to receive funding in the current budget year and/or within the next 5 years. We reviewed the approved acquisition program baselines for programs currently in the portfolio to determine their cost and schedule. We compared current baselines to previous baselines to evaluate whether there has been any cost or schedule growth in these programs. In comparing original costs to revised baseline costs, if a revised baseline presents both threshold costs and objective costs, threshold costs were used. In determining the cost to complete, we took the total estimated cost of the acquisition in its current baseline and subtracted the funding that the program has received as of and including fiscal year 2014. For some assets, such as the HC-130J which received funding not included in the Coast Guard budget, we derived the cost to complete by totaling the funds required to finish the program based upon the current cost estimate. We also reviewed the Coast Guard's Major Systems Acquisition Manual for guidance on acquisition program baselines. We interviewed officials from the Office of Management and Budget and the Department of Homeland Security's Program Accountability and Risk Management directorate and Program Analysis and Evaluation directorate to determine what, if anything, they are doing to balance the Coast Guard's needs with anticipated funding.

To determine the extent to which the Coast Guard is experiencing capability gaps, if any, given known affordability issues, we assessed the Coast Guard's performance targets and compared these targets with acquisition plans. In addition, we interviewed officials from the Coast Guard's acquisitions and resource directorates to identify the challenges the Coast Guard faces reaching these targets using current funding levels and to understand actions taken by the Systems Integration Team and Executive Oversight Council to address these challenges. We also reviewed actions the Coast Guard is taking to improve the affordability of recapitalizing its assets. We interviewed officials with the Coast Guard's acquisition directorate and the program managers for all of the programs currently in the portfolio to discuss the cost of the portfolio and future funding plans. To determine the condition and expected service life of legacy assets, we reviewed Coast Guard analysis of these assets and prior GAO work on legacy assets.

We conducted this performance audit from June 2013 to June 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Comments from the Department of Homeland Security

U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

May 23, 2014

Michele Mackin
Director, Acquisition and Sourcing Management
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Draft Report GAO-14-450, "COAST GUARD ACQUISTIONS: Better Information on Performance and Funding Needed to Address Shortfalls"

Dear Ms. Mackin:

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the U.S. Government Accountability Office's (GAO's) work in planning and conducting its review and issuing this report.

The Department is pleased to note GAO's acknowledgement that the U.S. Coast Guard (USCG) has "made strides in its efforts to improve its acquisition management capabilities." The USCG is proud of its long record of public safety and law enforcement service to the American people. The USCG must manage and balance a wide range of missions mandated by DHS priorities, as well as those required by existing statutes. Aside from managing and securing our borders, the USCG must manage and enforce maritime safety, environmental laws, and respond to emergencies of all types as required. It is also a vital component of the U.S. defense readiness strategy. As such, all capital acquisitions must consider the broadest range of mission contingencies in order to provide for the greatest flexibility and utilization of equipment from tax payer dollars. This approach provides a greater return on investment to the Nation as compared to an acquisition plan that only builds new assets to address single mission areas.

DHS is concerned, however, that GAO described the legacy Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems program as one that did not meet program goals. According to the USCG, the old C4ISR program was closed as a result of obsolescence and not due to performance and maintenance issues. The C4ISR software replacement was required because the current commercial operating system was becoming unsupportable through the commercial vendor. The project recognized this issue and instituted an effective approach to manage a known, impending technology obsolescence issue. Incorporating commercial items (particularly software) into government systems can reduce cost, but by doing so, the government inherently carries the risk of having to update systems due to obsolescence when the commercial entity changes portions of, or the entire system. This is but one example of were the USCG has made tough decisions to provide the greatest capability of equipment while using the least amount of dollars. Sometimes those decisions require identifying and cutting loses before they grow out of control. DHS believes

this example highlights, among others, where USCG has performed as a positive and effective systems evaluator and integrator.

The draft report contained four recommendations with which the Department concurs. Specifically, GAO recommended that the Secretary of Homeland Security and the Commandant of the Coast Guard revise their acquisition guidance to:

Recommendation 1: Specify when minimum performance standards should be met, such as prior to entering into full rate production.

Response: Concur. The USCG Assistant Commandant for Acquisition (CG-9) intends to update its Major System Acquisition Manual (MSAM) policy to address when minimum acquisition project performance standards should be met. Estimated Completion Date (ECD): June 30, 2015.

Recommendation 2: Clarify the performance data that should be used to assess whether or not minimum performance criteria have been met, prior to full rate production, to determine whether a performance breach has occurred.

Response: Concur. The USCG CG-9 intends to update its MSAM policy to address when minimum acquisition project performance standards have been met relative to a performance breach. ECD: June 30, 2015.

GAO also recommended that the Commandant of the Coast Guard:

Recommendation 3: Assess the operational effectiveness and suitability of the C4ISR system by fully integrating this assessment into other assets' operational test plans or by testing the C4ISR program on its own.

Response: Concur. The draft report states that the USCG will no longer test C4ISR systems, which could be confusing to some readers. It is important to note that the USCG is already testing a C4ISR system as part of its assessment of new assets, including the Fast Response Cutter. As C4ISR systems are integral to the operational performance of the asset, they are installed and their performance will be tested concurrently with the boat, cutter or aircraft they support. Since the overarching common C4ISR architecture originally envisioned by the Deepwater Program no longer exists, there is no single system per se to be operationally tested in isolation, separate from the supported asset. All installed C4ISR systems are operationally tested concurrently with the supported asset. The USCG CG-9 intends to provide clearer guidance with respect to testing of C4ISR systems in the next update to its MSAM policy to address how to test the C4ISR within the supported assets operational test plans. ECD: June 30, 2015.

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Recommendation 4: Develop a 20-year fleet modernization plan that identifies all acquisitions needed to maintain the current level of service and the fiscal resources necessary to build the identified assets. The plan should also consider trade-offs if the fiscal resources needed to execute the plan are not consistent with annual budgets.

Response: Concur. The USCG values long-term planning and will work closely with DHS to initiate longer term capital plans, as appropriate, among other topics and related assumptions, including the frequency of these efforts. The USCG can assemble a profile of the anticipated service lives of the various assets in its inventory and project them into the future. Such recapitalization plans are generally requirements driven; however, acquisitions do take into account affordability assessments upon entering into the acquisition decision process and at milestone events throughout the lifecycle. As a result, if annual budgets change during the acquisition cycle, recapitalization plans can be adjusted. The trade-off decisions considering cost, schedule and performance as a result of a changing fiscal environment or other program factors are made during the annual budget process and during acquisition program reviews to further account for future budgetary uncertainties. ECD: To Be Determined.

Again, thank you for the opportunity to review and provide comments on this draft report. Technical comments were previously provided under separate cover. Please feel free to contact me if you have any questions. We look forward to working with you in the future.

Sincerely,

Jim H. Crumpacker, CIA, CFE
Director
Departmental GAO-OIG Liaison Office

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Appendix III: Coast Guard Acquisition Portfolio Costs

The Coast Guard has 11 major acquisition programs in its current portfolio, based on the Fiscal Years 2014 through 2018 Capital Investment Plan. Of these 11 major acquisition programs, 8 were also a part of the 2007 recapitalization portfolio.[1] Over time, the composition of the portfolio has changed. For example, since our last review in 2012, the Coast Guard has added 3 programs to its acquisition portfolio and another 7 programs are ending and, therefore, will no longer need additional acquisition funding. We excluded $3.6 billion in "other costs including project management" from our analysis of the Coast Guard's current portfolio of assets because these costs are not periodically re-baselined. Thus, the total cost of the original 2007 baseline excluding these costs is $20.563 billion. Table 5 lists the total acquisition cost for each of the programs in the Coast Guard's current portfolio as well as the cost increases and cost to complete for the programs in the original 2007 baseline.

Table 5: Acquisition Cost Estimates, Including Cost to Complete, for Coast Guard Portfolio of Major Programs as of March 2014 (dollars in millions)

Dollars in millions

Asset	Original 2007 Baseline	Current Baseline (threshold costs)[a]	Cost Increases Since 2007	Cost to Complete (as of the end of fiscal year 2015)[b]
National Security Cutter	$3,450	$5,682	$2,232	$1,316
Offshore Patrol Cutter	8,098	12,101	4,003	11,939
Fast Response Cutter	3,206	4,243	1,037	2,547
HC-130H/J[c]	621	3,038	2,417	1,829
HC-144	1,706	3,169	1,463	2,127[d]
HH-65	741	1,150	409	570
C4ISR	1,353	1,123	(230)	353
Unmanned Aircraft System (Cutter-Based Only)	503	N/A	N/A	N/A
Icebreaker	N/A	831[e]	N/A	N/A
In-Service Vessel Sustainment	N/A	221[f]	N/A	N/A

[1] A major acquisition is equipment, service, and/or intellectual property acquired by the Coast Guard with a lifecycle cost greater than $300 million.

Dollars in millions

Asset	Original 2007 Baseline	Current Baseline (threshold costs)[a]	Cost Increases Since 2007	Cost to Complete (as of the end of fiscal year 2015)[b]
C-27J	N/A	TBD	N/A	TBD
Programs No Longer Planned to Receive Funding (Total)[g]	885	N/A	N/A	N/A
Total	**$20,563[h]**	**$31,558**	**$11,331**	**$20,681**

Source: GAO Analysis of Coast Guard data

Note: In current/then-year dollars in millions. This means that numbers have not been normalized for inflation. Numbers may not add due to rounding.

[a]The revised baselines present both threshold costs (the maximum costs allowable before a breach occurs) and objective costs (the minimum cost expected), threshold costs are used. For those programs that comprised the former Deepwater program, this allows traceability to the original $20.6 billion Deepwater baseline (the original baselines) while also showing how much programs could now cost based upon revised baselines.

[b]Cost to complete is calculated as the current baseline minus the funding provided to the program to date. Thus, it represents the amount of funding needed from fiscal year 2015 until the end of each program based on current estimates.

[c]The total cost of this program reflects a fleet of 22 HC-130Js.

[d]The Coast Guard has yet to make an official decision on the future of the HC-144 program; however, Coast Guard officials told us that it is likely that they will end procurement of the HC-144 program as the C-27Js come on line. The HC-144 program is currently paused.

[e]Estimate is preliminary and not based upon a full program life cycle cost estimate

[f]Estimate only includes two projects. This funding line is intended to encompass all fleet maintenance as it is needed.

[g]The programs no longer planned to receive additional funding as of 2013 are: HH-60, Medium Endurance Cutter Sustainment, and Patrol Boat Sustainment.

[h]The original cost of the Deepwater baseline was $24.2 billion, but we have excluded program management costs.

Appendix IV: GAO Contact and Staff Acknowledgements

GAO Contact

Michele Mackin, (202) 512-4841 or mackinm@gao.gov.

Staff Acknowledgments

In addition to the contact above, Katherine Trimble, Assistant Director; Laurier R. Fish; Peter W. Anderson; William Carrigg; John Crawford; Sylvia Schatz; and Lindsay Taylor all made key contributions to this report.

Related GAO Products

Defense Contracting: Actions Needed to Increase Competition. GAO-13-325. Washington, D.C.: March 28, 2013.

Coast Guard: Clarifying the Application of Guidance for Common Operational Picture Development Would Strengthen Program. GAO-13-321. Washington, D.C.: April 25, 2013.

Coast Guard: Portfolio Management Approach Needed to Improve Major Acquisition Outcomes. GAO-12-918. Washington, D.C.: September 20, 2012.

Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies. GAO-12-751R. Washington, D.C.: May 31, 2012.

Coast Guard: Legacy Vessels' Declining Conditions Reinforce Need for More Realistic Operational Targets. GAO-12-741. Washington, D.C.: July 31, 2012.

Missile Defense: Opportunity Exists to Strengthen Acquisitions by Reducing Concurrency. GAO-12-486. Washington, D.C.: April 20, 2012.

Coast Guard: Action Needed as Approved Deepwater Program Remains Unachievable. GAO-11-743. Washington, D.C.: July 28, 2011.

Coast Guard: Deepwater Requirements, Quantities, and Cost Require Revalidation to Reflect Knowledge Gained. GAO-10-790. Washington, D.C.: July 27, 2010.

Coast Guard: As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach. GAO-09-682. Washington D.C.: July 14, 2009.

Coast Guard: Better Logistics Planning Needed to Aid Operational Decisions Related to the Deployment of the National Security Cutter and Its Support Assets. GAO-09-497. Washington, D.C.: July 17, 2009.

Best Practices: High Levels of Knowledge at Key Points Differentiate Commercial Shipbuilding from Navy Shipbuilding. GAO-09-322. Washington, D.C.: May 13, 2009.

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