Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress

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Summary

The term Deepwater refers to a collection of more than a dozen Coast Guard acquisition programs for replacing and modernizing the service's aging fleet of deepwater-capable ships and aircraft. Until April 2007, the Coast Guard pursued these programs as a single, integrated acquisition program that was known as the Integrated Deepwater System (IDS) program or Deepwater program for short. The now-separated Deepwater acquisition programs include plans for, among other things, 91 new cutters, 124 new small boats, and 247 new or modernized airplanes, helicopters, and unmanned aerial vehicles (UAVs).

The year 2007 was a watershed year for Deepwater acquisition. The management and execution of what was then the single, integrated Deepwater program was strongly criticized by various observers. House and Senate committees held several oversight hearings on the program. Bills were introduced to restructure or reform the program in various ways. Coast Guard and industry officials acknowledged certain problems in the program's management and execution and defended the program's management and execution in other respects. The Coast Guard announced a number of reform actions that significantly altered the service's approach to Deepwater acquisition (and to Coast Guard acquisition in general). Among these was the change from a single, integrated Deepwater acquisition program to a collection of separate Deepwater acquisition programs.

The Coast Guard's management of Deepwater acquisition programs, including implementation of recommendations made by the Government Accountability Office (GAO), is a topic of continuing congressional oversight. Additional oversight issues include cost growth in Deepwater acquisition programs and the execution of individual Deepwater acquisition efforts, particularly those for surface ships.

The Coast Guard's proposed FY2011 budget requests $1,112.5 million in acquisition funding for Deepwater programs, including $101.0 million for aircraft, $856.0 million for surface ships and boats, and $155.5 million for other items.

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The Coast Guard's proposed FY2011 budget requests $1,112.5 million in acquisition funding for Deepwater programs, including $101.0 million for aircraft, $856.0 million for surface ships and boats, and $155.5 million for other items.

The Coast Guard's management of Deepwater acquisition programs, including implementation of recommendations made by the Government Accountability Office (GAO), is a topic of continuing congressional oversight. Additional oversight issues include cost growth in Deepwater acquisition programs and the execution of individual Deepwater acquisition efforts, particularly those for surface ships. Congress's decision concerning Deepwater acquisition programs could affect Coast Guard capabilities and funding requirements, Coast Guard acquisition policies and practices, and the industrial base that produces items for Deepwater acquisition programs.

Background

Deepwater Missions

The Coast Guard performs a variety of missions in the deepwater environment, which generally refers to waters more than 50 miles from shore. These missions include search and rescue, drug interdiction, alien migrant interdiction, fisheries enforcement, marine pollution law enforcement, enforcement of lightering (i.e., at-sea cargo-transfer) zones, the International Ice Patrol in northern waters, overseas inspection of foreign vessels entering U.S. ports, overseas maritime intercept (sanctions-enforcement) operations, overseas port security and defense, overseas peacetime military engagement, and general defense operations in conjunction with the Navy. Deepwater-capable assets are also used closer to shore for various operations.

Origin of Deepwater Acquisition Effort

The Coast Guard initiated the Deepwater acquisition effort in the late 1990s, following a determination by the Coast Guard that many of its existing (i.e., "legacy") deepwater-capable legacy assets were projected to reach their retirement ages within several years of one another. The Coast Guard's legacy assets at the time included 93 aging cutters and patrol boats and 207 aging aircraft. Many of these ships and aircraft are expensive to operate (in part because the cutters require large crews), increasingly expensive to maintain, technologically obsolete, and in some cases poorly suited for performing today's deepwater missions.

Structure of Deepwater Acquisition Effort

Structure Until 2007

Until 2007, the Coast Guard pursued Deepwater acquisition through a single, performance-based, system-of-systems acquisition program that used a private-sector lead system integrator (LSI):

- **System-of-Systems Acquisition.** Rather than replacing its deepwater-capable legacy assets through a series of individual acquisition programs, the Coast Guard initially decided to pursue the Deepwater acquisition effort as an integrated, system-of-systems acquisition, under which a combination of new and modernized cutters, patrol boats, aircraft, along with associated C4ISR[1] systems and logistics support, would be procured as a single, integrated package (i.e., a system of systems). The Coast Guard believed that a system-of-systems approach would permit Deepwater acquisition to be optimized (i.e., made most cost effective) at the overall Deepwater system-of-systems level, rather than suboptimized at the level of individual Deepwater platforms and systems.
- **Private-Sector Lead Systems Integrator (LSI).** To execute this system-of-systems acquisition approach, the Coast Guard initially decided to use a private-sector lead system integrator (LSI)—an industry entity responsible for designing, building, and integrating the various elements of the package so that it met the Coast Guard's projected deepwater operational requirements at the lowest possible cost.[2] The Coast Guard decided to use a private-sector LSI in part because the size and complexity of the Deepwater program was thought to be beyond the system-integration capabilities of the Coast Guard's then-relatively small in-house acquisition work force.
- **Performance-Based Acquisition.** The Coast Guard initially pursued the Deepwater program as a performance-based acquisition, meaning that the Coast Guard set performance requirements for the program and permitted the private-sector LSI some latitude in determining how the various elements of the Deepwater system would meet those requirements.

[1] C4I stands for command, control, communications, computers, intelligence, surveillance, and reconnaissance.

[2] For more on private-sector LSIs, see CRS Report RS22631, *Defense Acquisition: Use of Lead System Integrators (LSIs)—Background, Oversight Issues, and Options for Congress*, by Valerie Bailey Grasso.

The Coast Guard conducted a competition to select the private-sector LSI for the Deepwater program. Three industry teams competed, and on June 25, 2002, the Coast Guard awarded the role to Integrated Coast Guard Systems (ICGS)—an industry team led by Lockheed Martin and Northrop Grumman Ship Systems (NGSS). ICGS was awarded an indefinite delivery, indefinite quantity (ID/IQ) contract for the Deepwater program that included a five-year baseline term that ended in June 2007, and five potential additional award terms of up to five years (60 months) each. On May 19, 2006, the Coast Guard announced that it was awarding ICGS a 43-month first additional award term, reflecting good but not excellent performance by ICGS. With this additional award term, the contract has been extended to January 2011.

Revised Structure Since 2007

In 2007, as the Coast Guard's management and execution of the then-integrated Deepwater program was being strongly criticized by various observers, the Coast Guard announced a number of reform actions that significantly altered the service's approach to Deepwater acquisition (and to acquisition in general). As a result of these reforms, the Coast Guard, among other things, stopped pursuing Deepwater acquisition through a single, performance-based, system-of-systems acquisition program that used a private-sector LSI, and began pursuing Deepwater acquisition as a collection of individual, defined-based acquisition programs, with the Coast Guard assuming the lead role as systems integrator for each:

- **Individual Programs.** Although Deepwater acquisition programs still appear in the budget under the common heading IDS, the Coast Guard is now pursuing Deepwater acquisition programs as individual programs, rather than as elements of a single, integrated program. The Coast Guard states that it is still using a systems approach to optimizing its acquisition programs, including the Deepwater acquisition programs, but that the system being optimized is now the Coast Guard as a whole, as opposed to the Deepwater subset of programs.
- **Coast Guard as System Integrator.** The Coast Guard announced in April 2007 that, among other things, it would assume the lead role as systems integrator for all Coast Guard Deepwater assets (as well as other major Coast Guard acquisitions as appropriate). The Coast Guard is phasing out its reliance on ICGS as a private-sector LSI for Deepwater acquisition, and shifting system-integration responsibilities to itself. To support this shift, the Coast Guard is increasing its in-house system-integration capabilities.
- **Defined-Based Acquisition.** The Coast Guard has decided to shift from performance-based acquisition to the use of more-detailed specifications of the capabilities that various Deepwater assets are to have. The Coast Guard states that although this new approach involves setting more-detailed performance specifications, it does not represent a return to minutely-detailed specifications such as the Military Specification (MilSpec) system once used in Department of Defense (DOD) acquisition programs. The Coast Guard refers to its new approach as defined-based acquisition.

Deepwater Assets Planned for Acquisition[3]

Acquisition Program Baseline

Table 1 shows the Deepwater assets planned for acquisition under a November 2006 Deepwater Acquisition Program Baseline (APB), and the acquisition cost of these assets in then-year dollars as estimated at that time. As shown in the table, the total acquisition cost of these assets was estimated at the time at $24.23 billion in then-year dollars. Acquisition funding for Deepwater assets were scheduled at the time to be completed in FY2025, and the buildout of the assets was scheduled at the time to be completed in 2027.

Table 1. Deepwater Assets Planned for Acquisition

(with acquisition costs in millions of then-year dollars, as estimated at the time the Acquisition Program Baseline was published)

Qty.	Item	Cost
Air assets		
6	Missionized HC-130J Long Range Surveillance (LRS) aircraft (cost of missionization)	11
16	Modernized and upgraded HC-130H LRS aircraft (cost of modernization and upgrading)	610
36	New HC-144A Medium Range Surveillance (MRS) aircraft (also called Maritime Patrol Aircraft, or MPA) based on the European Aeronautic Defence and Space Company (EADS)/CASA CN-235 Persuader MPA aircraft design	1,706
42	Modernized and upgraded MH-60T Medium Range Recovery (MRR) helicopters (cost of modernization and upgrading)	451
102	Modernized and upgraded HH-65C Multi-Mission Cutter Helicopters (MCHs) (cost of modernization and upgrading)	741
45	New vertical take-off unmanned aerial vehicles (VUAVs), also called unmanned aircraft systems (UASs)	503
	Subtotal air assets	***4,022***
Surface assets		
8	New National Security Cutters, or NSCs, displacing about 4,000 tons each (i.e., ships analogous to today's high-endurance cutters)	3,450
25	New Offshore Patrol Cutters, or OPCs, displacing about 3,200 tons each (i.e., ships analogous to today's medium-endurance cutters)	8,098
46	New Fast Response Cutters—Class A (FRC-As) displacing roughly 200 tons each, to replace most of the Coast Guard's existing 110-foot Island-class patrol boats	2,613
12	New Fast Response Cutters—Class B (FRC-Bs) displacing roughly 200 tons each, to replace the rest of the Coast Guard's existing 110-foot Island-class patrol boats	593
27	Medium Endurance Cutters (MECs) upgraded with a Mission Effectiveness Project (MEP) (cost of upgrading)	317
17	Patrol boats (PBs) upgraded with a MEP (cost of upgrading)	117
124	New small boats for Deepwater cutters, including 33 Long-Range Interceptors (LRIs) and 91 Short-	110

[3] Additional background information on Deepwater acquisition programs is available at the Coast Guard's acquisition website at http://www.uscg.mil/acquisition/.

Qty.	Item	Cost
	Range Prosecutors (SRPs)	
8	110-foot Island-class PBs converted into 123-foot PBs (cost of conversion; program not successful and halted after 8 boats)	95
	Subtotal surface assets	***15,393***
C4ISR systems		
—	Common operational picture	1,071
—	Shore systems	102
—	Cutter upgrades	180
	Subtotal C4ISR systems	***1,353***
Integration and oversight		
—	System engineering and oversight	1,118
—	Government program management	1,518
—	Technology obsolescence prevention	345
—	Logistics and infrastructure upgrades	481
	Subtotal integration and oversight	***3,462***
	TOTAL	**24,230**

Source: Deepwater Acquisition Program Baseline (APB) approved November 7, 2006.

Although **Table 1** shows 12 FRCs and 46 FRC-Bs, the Coast Guard's Request for Proposals (RFP) for the FRC-B program includes options for building up to 34 FRC-Bs (which, if exercised, would reduce the number of FRC-As to as few as 24). The Coast Guard has also stated that if the FRC-Bs fully meet the requirements for the FRC, all 58 of the FRCs might be built to the FRC-B design.

A version of the baseline approved by DHS in May 2007 shows some different quantities compared to those shown above—specifically, 20 patrol boats upgraded with a MEP (rather than the 17 shown above); a figure to be determined for an unmanned aerial system (UAS) (rather than 45 VUAVs shown above); and no 110/123-foot modernized Island class patrol boats (rather than the 8 shown above).[4]

Fleet Mix Analysis

As a consequence of assuming the role of lead system integrator for Deepwater acquisition programs, the Coast Guard is performing a fleet mix analysis to review its requirements for Deepwater assets. The analysis could lead to changes in the planned mix of Deepwater assets.[5] The results of the analysis might be released some time in 2010.

[4] Government Accountability Office, *Coast Guard[:] Update on Deepwater Program Management, Cost, and Acquisition Workforce*, GAO-09-620T, April 22, 2009, p. 4.

[5] Rebekah Gordon, "Coast Guard Conducting Fleet-Mix Analysis for Deepwater Assets," *Inside the Navy*, April 6, 2009.

Examples of Deliveries of Deepwater Assets[6]

Examples of deliveries and other milestones for Deepwater assets include the following:

- The Coast Guard commissioned the first and second NSCs, *Bertholf* and *Waesche*, into service on August 4, 2008, and May 7, 2010, respectively. The third, *Stratton*, had its keel laying on July 20, 2009, and was 47% complete as of July 14, 2010.
- The first HC-144A Ocean Sentry MPA aircraft was accepted by the Coast Guard on March 10, 2008. As of June 11, 2010, a total of nine had been delivered. On February 6, 2009, an HC-144A officially stood watch for the first time on a scheduled operational patrol. The aircraft achieved Initial Operational Capability (IOC) on April 22, 2009.
- The first missionized HC-130J LRS aircraft was accepted by the Coast Guard on February 29, 2008; the sixth and final aircraft was accepted on May 18, 2010. New surface search radars have been installed on all 17 HC-130H aircraft.
- The first production MH-60T Jayhawk Medium Range Recovery Helicopter was delivered on June 3, 2009. As of July 14, 2010, 12 had been delivered to the Coast Guard. The aircraft achieved Initial Operational Capability (IOC) on October 1, 2009.
- The Coast received its first MH-65C helicopter in October 2007. As of July 14, 2010, the Coast Guard had configured and delivered 61MH-65Cs and two MH-65Ds.

Deepwater Acquisition Funding

Prior-Year Funding

Table 2 below shows prior-year acquisition funding for Deepwater acquisition programs.

[6] Information in this section is taken from the Coast Guard Acquisition Directorate's web page on acquisition programs and projects http://www.uscg.mil/acquisition/programs/acquisitionprograms.asp, and Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009.

Table 2. Prior-Year Acquisition Funding For Deepwater Programs

(in millions of dollars, rounded to nearest tenth)

	Prior[a]	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Request	n/a	320.2	500.0	500.0	678	966.0	934.4	836.9	990.4	1,051.5
Appropriation	n/a	320.2	478.0	668.2	724.0	933.1	1065.9	783.3	1034.0	1,123.0
Rescissions	n/a		3.1	57.6	38.9	98.7		132.4		
Transfers	n/a				49.7	77.8	78.7			
Supplemental appropriations	n/a					124.2				
Total[b]	**117.0**	**320.2**	**474.9**	**610.6**	**734.8**	**1036.4**	**1144.6**	**650.8**	**1034.0**	**1,123.0**

Source: Prepared by CRS using Coast Guard data provided on January 29, 2007 (FY2007 and prior years), FY2008 and FY2009 appropriations bills for FY2008 and FY2009, and (for FY2010) Coast Guard FY2011 budget submission. Totals may not add due to rounding.

Note: n/a=not available

a. Pre-award funding prior to 2002.

b. Excludes HC-130J funding prior and airborne use-of-force funding prior to FY2007. The figure for FY2010 excludes $4.0 million funding for High Endurance Cutter sustainment and $27.3 million in funding for polar icebreaker sustainment. Although these funds were appropriated in FY2010 under the surface category of the Integrated Deepwater System (IDS), the Coast Guard, as part of its FY2011 budget display of its Acquisition, Construction and Improvement (AC&I) account, shows these two line items outside the IDS collection of line items.

FY2011 Funding Request

Table 3 shows acquisition funding requested for the Deepwater program for FY2011, along with enacted FY2010 funding. As shown in the table, the Coast Guard for FY2011 has requested $1,112.5 million in acquisition funding for Deepwater programs, including $101.0 million for aircraft, $856.0 million for surface ships and boats, and $155.5 million for other items. The $856.0 million requested for surface ships and boats includes funding for production of the fifth NSC; continued analysis and design of the OPC; production of the FRCs numbers 9 through 12; production of one LRI and one SRP; and operational enhancement of three Medium Endurance Cutters at the Coast Guard Yard through the Mission Effectiveness Project.

Table 3. FY2010 and FY2011 Acquisition Funding for Deepwater Programs

(in millions of dollars, rounded to nearest tenth; as shown in FY2009 budget)

Program	FY10 enacted	FY11 requested
Maritime Patrol Aircraft (MPA)	138.5	40.0
HH-60 Conversion Projects	45.9	32.0
HH-65 Conversion/Sustainment Projects	38.0	0
HC-130H Conversion/Sustainment Projects	45.3	25.0
HC-130J Fleet Introduction	1.3	4.0
Subtotal aircraft	***269.0***	***101.0***
National Security Cutter (NSC)	389.5	538.0
Offshore Patrol Cutter (OPC)	9.8	45.0
Fast Response Cutter (FRC)	243.0	240.0
Deepwater small boats	3.0	3.0
Medium-endurance cutter sustainment	31.1	30.0
Patrol boats sustainment	23.0	0
Subtotal surface ships	***699.4***	***856.0***
Government program management	45.0	45.0
Systems engineering and integration	35.0	29.0
C4ISR	35.0	30.5
Deepwater logistics	37.7	50.0
Technology obsolescence prevention	1.9	1.0
Subtotal other	***154.6***	***155.5***
TOTAL	**1,123.0**	**1,112.5**

Source: Coast Guard FY2011 budget submission. C4ISR means Command and control, communications, computers, intelligence, surveillance and reconnaissance. The total of $1,123.0 million for FY2010 excludes $4.0 million funding for High Endurance Cutter sustainment and $27.3 million in funding for polar icebreaker sustainment. Although these funds were appropriated in FY2010 under the surface category of the Integrated Deepwater System (IDS), the Coast Guard, as part of its FY2011 budget display of its Acquisition, Construction and Improvement (AC&I) account, shows these two line items outside the IDS collection of line items.

Criticism of Deepwater Management in 2007

The management and execution of the then-integrated Deepwater program was strongly criticized in 2007 by the DHS Inspector General (IG),[7] GAO,[8] the Defense Acquisition University (DAU)

[7] See, for example, Statement of Richard L. Skinner, Inspector General, U.S. Department of Homeland Security, Before the Committee on Transportation and Infrastructure, Subcommittee on Coast Guard and Maritime Transportation, U.S. House of Representatives, "Deepwater: 120-Day Update," June 12, 2007; as well as Department of Homeland Security, Office of Inspector General, *Acquisition of the National Security Cutter*, OIG -07-23, January 2007 (available online at http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_07-23_Jan07.pdf); Department of Homeland Security, Office of Inspector General, 110'/123' Maritime Patrol Boat Modernization Project, OIG -07-27, January 2007 (available online at http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_07-27_Feb07.pdf); U.S. Department of Homeland Security, Office of (continued...)

(whose analysis was requested by the Coast Guard),[9] several Members of Congress from committees and subcommittees that oversee the Coast Guard, and other observers. House and Senate committees held several oversight hearings on the program, at which non-Coast Guard, non-ICGS witnesses, as well as several Members of Congress, strongly criticized the management and execution of the program. Criticism focused on overall management of the program, and on problems in three cutter acquisition efforts—the NSC, the modernization of the 110-foot patrol boats, and the FRC. For a more detailed discussion, see **Appendix A**.

Coast Guard Reform Actions in 2007

In 2007, as the Coast Guard's management and execution of the then-integrated Deepwater program was being strongly criticized by various observers, the Coast Guard announced a number of reform actions that significantly altered the service's approach to Deepwater acquisition (and to Coast Guard acquisition in general). Among these was the change from a single, integrated Deepwater acquisition program to a collection of separate Deepwater acquisition programs. For a more detailed discussion, see **Appendix B**.

Justice Department Investigation

On April 18, 2007, it was reported that the Justice Department was conducting an investigation of the Deepwater program. Press reports at the time stated that investigation centered on communications systems, the conversion of the Coast Guard's 110-foot patrol boats, and the National Security Cutter (NSC). The Justice Department reportedly notified Lockheed, Northrop, and certain other firms involved in the Deepwater program of the investigation on December 13, 2006, and directed the firms to preserve all documents relating to the program.[10]

(...continued)

Inspector General, *Major Management Challenges Facing the Department of Homeland Security (Excerpts from the FY 2006 DHS Performance and Accountability Report)*, December 2006. (OIG-07-12); and U.S. Department of Homeland Security, Office of Inspector General. *Improvements Needed in the U.S. Coast Guard's Acquisition and Implementation of Deepwater Information Technology Systems*, August 2006. (Office of Information Technology, OIG-06-55).

[8] See, for example, Government Accountability Office, *Coast Guard[:] Challenges Affecting Deepwater Asset Deployment and Management and Efforts to Address Them*, GAO-07-874, June 2007; Government Accountability Office, *Coast Guard[:] Status of Efforts to Improve Deepwater Program Management and Address Operational Challenges, Statement of Stephen L. Caldwell, Acting Director Homeland Security and Justice Issues, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives*, GAO-07-575T, March 8, 2007; and Government Accountability Office, *Coast Guard[:] Coast Guard Efforts to Improve Management and Address Operational Challenges in the Deepwater Program, Statement of Stephen L. Caldwell, Acting Director Homeland Security and Justice Issues, Testimony Before the Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard, Committee on Commerce, Science and Transportation, U.S. Senate*, GAO-07-460T, February 14, 2007.

[9] Defense Acquisition University, *Quick Look Study, United States Coast Guard Deepwater Program*, February 2007.

[10] Ana Radelat, "Justice Investigating Deepwater Contractors," *NavyTimes.com*, April 18, 2007; Chris Strohm, "Deepwater Contractors Face Justice Probe" *GovExec.com*, April 19, 2007; Patricia Kime, "Justice Investigating Deepwater Contract," *NavyTimes.com*, April 20, 2007.

Oversight Issues for Congress

The Coast Guard's management of Deepwater acquisition programs, including implementation of recommendations made by the Government Accountability Office (GAO), is a topic of continuing congressional oversight. Additional oversight issues include cost growth in Deepwater acquisition programs and the execution of individual Deepwater acquisition efforts, particularly those for surface ships.

Management of Deepwater Programs in General

Coast Guard Perspective

The Coast Guard testified in April 2009 that:

> Efforts to consolidate the Coast Guard Acquisition Directorate, assume Lead System Integrator responsibilities, and implement the [Coast Guard's] *Blueprint for Acquisition Reform* [document] have left us better equipped to manage costs, schedules and performance. These business improvements have led to a number of high profile project successes. Consider the recent award of the Fast Response Cutter (FRC) Sentinel-class patrol boat. Initially planned as part of the Deepwater program, to be delivered through Integrated Coast Guard Systems (ICGS), we took this project back within the Coast Guard to ensure full and open competition and responsible program management. We have followed our reformed acquisition processes, conducting a deliberative proposal review and award determination with integrated participation from technical authorities and the operational community. The FRC's proven parentcraft design will minimize cost and schedule risk and mitigate the patrol boat hour gap in the shortest time possible. Neither ICGS nor the Coast Guard's pre-modernized acquisition program could have accomplished this feat as efficiently or effectively, and I am confident we will build on this record of advances for future acquisitions programs as well....
>
> Today, I am pleased to discuss our wholly reformed acquisition organization, an organization with processes and procedures in place to ensure successful program management and oversight. I expect further challenges, but I have the utmost confidence that the processes now in place allow us to address those challenges head-on and facilitate delivery of assets and systems with capabilities to meet the mission needs of today and tomorrow.
>
> The most pointed example of the success of our reformed acquisition processes is Fast Response Cutter Sentinel-class patrol boat. With a total potential contract value of more than $1 billion, it was a highly competitive process, and our selection survived two post-award protests, demonstrating that our robust acquisition process was beyond reproach.
>
> As the yard stick by which to measure the success of our reformed acquisition enterprise, the Sentinel project provides a number of assurances - all built on the cornerstones for successful acquisition - for its own and future acquisition management successes, including:
>
> • Establishment and maintenance of a direct Coast Guard relationship with the contractor, rather than through a separate lead systems integrator;
>
> • Development of detailed technical requirements, and firm adherence to those requirements throughout the proposal design evaluation process and construction;

• Classification of cutters to established and recognized standards (i.e., American Bureau of Shipping and High Speed Naval Vessel Rules);

• Use of parent craft designs where applicable, with parent craft designer and builder co-located on engineering team;

• On-site government staff at production facilities;

• Fixed price contract structure;

• Extensive involvement of technical authority throughout acquisition and delivery process;

• Independent validation (i.e., independent cost estimates and design assessments);

• Leveraging Navy and other government partnerships; and,

• Ability to re-compete thru options for data and licensing.

The Sentinel project has become the model for all current and future Coast Guard acquisition programs. By adopting needed reforms, and guided by this Subcommittee, we've demonstrated the right way to develop and manage an acquisition project. With those reforms solidly in place, the foundation for continued success is firm....

As acquisition policy and process improvements have promoted project successes, one persistent set of challenges has been the recruitment, development, and retention of a highly qualified acquisition workforce. We have accomplished much in our reforms of contracting, business and financial management, program management, systems engineering and other key disciplines. But, like other federal agencies, we must work hard to attract and retain the best and brightest in a highly competitive market.

In the 1990s, the level of investment in Coast Guard acquisition was approximately $200 million. In FY 2009, we were appropriated nearly $1.5 billion for our recapitalization programs. This growth in investment has required our professional workforce to grow to ensure adequate program management and contractor oversight and management. We have worked hard to build capacity. Today the Acquisition Directorate has 855 military and government civilian personnel, and is continuing to grow—including 104 added positions in 2008 and another 65 positions in 2009.

With many agencies competing for qualified acquisition professionals, it is critically important for the Coast Guard to remain competitive in the labor market. The Coast Guard must be able to use all hiring and workforce management tools effectively and expeditiously.

Once hired, however, another challenge is ensuring the appropriate training, skills, and career progression for our workforce. As a government manager, I have an obligation to properly equip my personnel with the skills and tools they need to accomplish their missions.

One of the areas where we have placed enormous pressure is on our training and certification programs. A couple of years ago we had a lot of people who might have had the right experience but had not completed required training or certification, so it was difficult to see standardized skills across projects. We have addressed this challenge. Today, of the 14 Level I investments in our acquisition portfolio (valued at greater than $1 billion total life cycle cost), 100 percent are led by DHS Level III (the highest level) certified program managers.

> We have also developed a new Human Capital Strategic Plan that outlines several goals aimed at improving the skills of our workforce. An overarching objective is to raise the profile of Coast Guard acquisition as a profession with well-defined career paths for both uniformed and civilian employees. That strategy sets goals for training and educational opportunities, using internal resources as well as reaching out to third parties, such as the Defense Acquisition University and the Naval Postgraduate School, to provide additional support.
>
> The goal in these efforts is to improve the career path that can be followed by uniformed and civilian employees, ultimately narrowing the gap between the complexity of acquisition tasks and the availability of skilled workers to accomplish them....
>
> With acquisition reform firmly taking root, the future of Coast Guard acquisition is bright. We have learned from the past, but our focus remains on the future. Reformed processes have already led to acquisition success, but I am confident our greatest successes lay ahead, if we remain committed to the foundational principles and acquisition cornerstones that have driven our reforms. As the Coast Guard's mission support organization is established fully, those principles will become further engrained in our mission support and acquisition culture.
>
> The future will see new requirements for ever new assets and systems. In fact, we will soon begin the largest single acquisition project in our history—the Off-Shore Patrol Cutter. Now that our reforms are in place, I am confident that this and other future projects will be managed effectively and efficiently.[11]

GAO Perspective

GAO for several years has been assessing, providing reports and testimony on, and making recommendations for Coast Guard management of Deepwater acquisition. The Coast Guard has implemented many of GAO's recommendations. The extent to which the Coast Guard has implemented GAO recommendations has been a topic of continuing congressional oversight for Deepwater acquisition.

A July 2010 GAO report states:

> DHS has revised its approach to managing and overseeing Deepwater by making the program subject to its recently finalized acquisition directive, which establishes a number of review points to provide insight into such key documents as baselines and test reports. DHS has also increased the number of its reviews of individual Deepwater assets. The Coast Guard's own management policies are generally aligned with DHS directives, although operational testing policies are still being revised, and it has developed additional guidance on completion of key requirements documents. In taking on the systems integrator role, the Coast Guard is also decreasing its dependence on ICGS by planning for alternate vendors on some of the assets already in production, as well as awarding and managing work outside of the ICGS contract for other assets….
>
> The Coast Guard continues to take steps to address its acquisition workforce needs as it assumes the role of system integrator. For example, it is using a workforce planning model

[11] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 2-3, 8-11.

> to estimate current and future needs for key acquisition personnel. The Coast Guard has also begun to implement initiatives such as promoting career growth for acquisition professionals. External limitations on the availability of acquisition personnel, coupled with 100 new positions authorized in fiscal year 2010, place the Coast Guard's acquisition directorate vacancy rate at about 20 percent. While it is using contractors in support roles, the Coast Guard has released guidance regarding the roles of government staff in overseeing contractors.[12]

GAO testified in February 2010 that:

> the Coast Guard has also had several acquisition management challenges throughout the history of [the Deepwater] program and some of those challenges remain. To address some of these past acquisition management challenges, in April 2007, the Coast Guard assumed the role of systems integrator for the Deepwater Program, reduced the scope of the work by the former systems integrator (or prime contractor), Integrated Coast Guard Systems (ICGS), and assigned these functions to Coast Guard stakeholders. Additionally, the Coast Guard has improved and begun to apply the disciplined management process contained in its Major Systems Acquisition Manual (MSAM) for individual assets, although it did not meet its goal of adhering to this process for all Deepwater assets by March 2009. In addition, we reported in July 2009 that the MSAM does not appear to be consistent with DHS policy that requires entities responsible for operational testing to be independent of the system's users. The Coast Guard concurred with our recommendation to consult with DHS on policies regarding the independent operational test authority....
>
> Problems in Deepwater management and oversight have led to delivery delays and other operational challenges for certain assets, as our prior work has identified, particularly (1) patrol boats and their anticipated replacements, the Fast Response Cutters and (2) the National Security Cutter. Specifically, we reported in June 2008 that conversion of the first eight 110-foot patrol boats was unsuccessful, and subsequently, the Coast Guard decided to remove these vessels from service and accelerate the design and delivery of the replacement Fast Response Cutters. The removal from service of the eight converted patrol boats in November 2006 created operational challenges by reducing potential patrol boat availability by 16 percent or 20,000 annual operational hours. To mitigate the loss of these eight patrol boats and the associated 2,500 operational hours per patrol boat in the near term, the Coast Guard implemented a number of strategies beginning in fiscal year 2007. For example, the Coast Guard began using the crews from the eight patrol boats removed from service to augment the crews of eight other patrol boats so that these assets could operate for longer duration, yet still met crew rest requirements. To help fill the longer-term patrol boat operational gap, Coast Guard officials continue to pursue the acquisition of a commercially available Fast Response Cutter. The Coast Guard reports that the first of these cutters, the Sentinel, will commence operations in Miami, Florida in fiscal year 2011. While the contract is for the design and production of up to 34 cutters, the Coast Guard intends to acquire a total of 12 by fiscal year 2011 to assess the capabilities of these first 12 before exercising options for additional cutters. Coast Guard officials noted that they plan to assess the capabilities of the new cutter through operational test and evaluation before exercising options for additional cutters.
>
> Regarding the National Security Cutters, delays in the delivery of National Security Cutters and the support assets of unmanned aircraft and small boats have created operational gaps for the Coast Guard that include the projected loss of thousands of days in National Security

[12] Government Accountability Office, *COAST GUARD[:] Deepwater Requirements, Quantities, and Cost Require Revalidation to Reflect Knowledge Gained*, GAO-10-790, July 2010, summary page.

Cutter availability for conducting missions until 2018, as we reported in July 2009. The first vessel (USCGC Bertholf, see figure 1) was initially projected for delivery in 2006 but was not delivered to the Coast Guard until May 2008. We reported in July 2009 that this first vessel was undergoing final trials as the Coast Guard prepared it for full operational service in the fourth quarter of fiscal year 2010. The Coast Guard deployed this first National Security Cutter without its planned support assets. Given the delivery delays, the Coast Guard must continue to rely on High Endurance Cutters that are becoming increasingly unreliable. Coast Guard officials said that the first National Security Cutter capabilities will be greater than those of a High Endurance Cutter; however, the Coast Guard cannot determine the extent to which the National Security Cutters' capabilities will exceed those of the High Endurance Cutter until the National Security Cutters' support assets are operational, which will take several years. To mitigate these operational gaps, the Coast Guard is considering extending the service life of some of its High Endurance Cutters and is using existing aircraft and small boats until unmanned aircraft and new small boats are operational. However, because the High Endurance Cutters are increasingly unreliable, the Coast Guard planned to perform a series of upgrades and maintenance procedures on selected vessels. Before this work could begin, the Coast Guard conducted an analysis on the condition of the High Endurance Cutters and this resulted in the plan to decommission 4 High Endurance Cutters by fiscal year 2011, which could further negatively impact the Coast Guard's ability to more effectively conduct missions.

Looking forward, Coast Guard officials stated that they must review and continuously re-validate whether assumptions used to determine the original fleet mix (i.e., types and number of vessels and aircraft) of Deepwater assets are still reflective of mission demands and operational requirements. For example, the Coast Guard is conducting an updated review to determine whether it will continue with the contractor's original 2001 baseline mix of 8 National Security Cutters, 25 Offshore Patrol Cutters, and 58 Fast Response Cutters. From 2005 to 2006, the Coast Guard worked to rebaseline the Deepwater program to reflect its post-September 11 mission. In April 2006, we reported on this baseline, looking at key changes in asset numbers and capabilities between the original (2001) and revised (2005 and 2006) Deepwater baseline implementation plans. At that time, we found that the Coast Guard's analytical methods were appropriate for determining if the revised asset mix would provide greater mission performance and whether the mix was appropriate for meeting Deepwater missions. In May 2007, the DHS approved the Deepwater Acquisition Program Baseline, which reflects the revised 2005 to 2006 implementations plans. Since that time, as the Coast Guard has taken over the acquisition and management responsibilities for the Deepwater program from the contractor, it has realized that its knowledge of how the various proposed assets would work together to help meet mission needs were limited because the contractor, in certain cases, had developed the plans for these assets without using all of the input from the Coast Guard. Coast Guard officials stated that as part of the on-going process to review the original work completed by the contractor, and in light of technology advances, the Department's maturation, program oversight, and new assets coming online, the Coast Guard has initiated an analysis of the capabilities, number, and mix of assets it needs to fulfill its Deepwater missions by undertaking a new fleet mix analysis. The Coast Guard expects that this fleet mix analysis will assist in determining capability-capacity-performance sensitivities and serve as one tool, among many, in making future capability requirements determinations, including future fleet mix decisions. The results of this study were originally expected in the summer of 2009, but U.S. Coast Guard officials told us that, as of February 2010, the finalization of this study is not expected for a few more months, at which time Coast Guard leadership is to assess the results and plan for future asset procurement decisions. According to Coast Guard officials, the Coast Guard plans to update this fleet mix analysis every 4 years and use it as a basis to update the numbers and types of assets needed

> for the Deepwater program. At this time, it is too soon to determine the extent to which the fleet mix analysis will inform the Coast Guard's future Deepwater investment decisions.[13]

Cost Growth

Coast Guard Perspective

A July 2009 news report stated: "The total cost of the Coast Guard's beleaguered Deepwater acquisition program is a 'moving target' that could rise beyond the latest $26.3 billion price tag, but the completion date for the purchases could come sooner than projected, the service's top officer testified last week."[14]

The Coast Guard testified in April 2009 that:

> [a] persistent challenge is controlling costs in complex, multiple-year projects – especially those costs driven by economic factors outside the Coast Guard's control, more specifically, those types of cost increases recently impacting the National Security Cutter and Maritime Patrol Aircraft projects. Current economic conditions have seen a steady six-month decline in the cost of commodities such as nickel, steel and copper. However, when we award production contracts, our contract price reflects commodity prices at the time of award.
>
> In the case of the National Security Cutter we are executing production contracts for NSCs two and three and the long lead time materials contract for NSC four that were priced based on historically high commodity and fuel prices in effect during the summer of 2008. Likewise, when current NSC and MPA contracts were awarded, the value of the U.S. dollar was at a record low when compared to other foreign currencies, meaning all foreign components necessary for production were more expensive.
>
> While the government will never be able to eliminate these types of cost changes completely, we have taken steps to minimize their impact within Coast Guard acquisitions. Once again, by building on the cornerstones for acquisition success, we have established a firm commitment to independent cost estimates within each project to validate projected program costs. We have initiated more rigorous government oversight of contractor performance and cost accounting, including renewed emphasis on Earned Value Management data. And we continue to work with industry to balance risk and ensure affordable acquisition programs at best value for the government.[15]

GAO Perspective

A July 2010 GAO report states:

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[13] Government Accountability Office, Coast Guard[:] Observations on the Requested Fiscal Year 2011 Budget, Past Performance, and Current Challenges, GAO-10-411T, February 25, 2010 (Testimony before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, U.S. House of Representatives), pp. 12-17.

[14] Rebekah Gordon, "Coast Guard Commandant: Deepwater Price Tag A 'Moving Target,'" *Inside the Navy*, July 13, 2009.

[15] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 17-18.

> Currently, the Deepwater Program exceeds the 2007 cost and schedule baselines, and given revisions to performance parameters for certain assets, it is unlikely to meet system-level performance baselines. The asset-specific baselines that have been approved to date, while providing greater insight into asset-level capabilities, place the total cost of Deepwater at roughly $28 billion, or $3.8 billion over the $24.2 billion 2007 baseline. The revised baselines also present life-cycle costs, which encompass the acquisition cost as well as costs for operations and maintenance. While the revised baselines show a significant decrease in life-cycle costs, due to changes to assumptions like shorter service lives for assets, the Coast Guard's understanding of them continues to evolve as the agency revisits its assumptions and produces new cost estimates. Costs could continue to grow as four assets currently lack revised cost baselines; among them is the largest cost driver in the Deepwater Program, the Offshore Patrol Cutter. The asset-level baselines also indicate that schedules for some assets are expected to be delayed by several years. Regarding system-level performance, the 2007 baseline may not be achievable, as the Coast Guard has redefined or eliminated key performance indicators for many individual assets, while significant uncertainties surround other assets. Further, a planned analysis to reassess the overall fleet mix for Deepwater was not completed as planned, and a new analysis will include surface assets only. In the meantime, the Coast Guard and DHS are proceeding with acquisition decisions on individual assets.[16]

GAO testified in February 2010 that:

> The Coast Guard has also made other improvements to its oversight and management of the Deepwater program. Due in part to the Coast Guard's increased insight into its purchases, the anticipated cost, schedules, and capabilities of many Deepwater assets have changed since the $24.2 billion baseline was established in 2007. Coast Guard officials have stated that this baseline reflected not a traditional cost estimate, but rather the anticipated contract costs as determined by ICGS. As the Coast Guard developed its own cost baselines for some assets, as of July 2009, it has become apparent that some of the assets it is procuring will likely cost up to $2.7 billion more than anticipated. This represents about a 39 percent cost growth for the assets under the revised cost estimates. According to Coast Guard, as more cost baselines are developed and approved, further cost growth is likely. Updated baselines also indicate that schedules have slipped for delivery of several of the assets. [17]

Reporting of Costs and Planned Procurement Quantities

Regarding Coast Guard reporting of costs and planned procurement quantities for Deepwater acquisition programs, a July 2009 GAO report stated:

> The Coast Guard's budget submission, as currently structured, limits Congress's understanding of details at the asset level in so far as it does not include key information such as assets' total acquisition costs or, for the majority of assets, the total quantities planned. For example, while the justification of the NSC request includes a detailed description of expected capabilities and how these capabilities link to the Coast Guard's missions and activities funded by past appropriations, it does not include estimates of total

[16] Government Accountability Office, *COAST GUARD[:] Deepwater Requirements, Quantities, and Cost Require Revalidation to Reflect Knowledge Gained*, GAO-10-790, July 2010, summary page.

[17] Government Accountability Office, Coast Guard[:] Observations on the Requested Fiscal Year 2011 Budget, Past Performance, and Current Challenges, GAO-10-411T, February 25, 2010 (Testimony before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, U.S. House of Representatives), pp. 13-14.

> program cost, future award or delivery dates of remaining assets, or even the total number of assets to be procured.
>
> Our past work has emphasized that one key to a successful capital acquisition, such as the multibillion-dollar ships and aircraft the Coast Guard is procuring, is budget submissions that clearly communicate needs.11 An important part of this communication is to provide decision makers with information about cost estimates, risks, and the scope of a planned project before substantial resources are committed. Good budgeting also requires that the full costs of a project be considered upfront when decisions are made. Other federal agencies that acquire systems similar to those of the Coast Guard, such as the Department of Defense, capture these elements in justifications of their budget requests....
>
> While the Coast Guard's asset-level Quarterly Acquisition Reports to Congress and the annual Deepwater Program Expenditure Report include some information on total costs and quantities, these documents are provided only to the appropriations committees, and they contain selected information that is restricted due to acquisition sensitive material. The budget justification prepared by the Coast Guard is a tool that Congress uses in its budget and appropriations deliberations. Presentation of information on the full costs and quantities of Deepwater assets in the Coast Guard's budget submission can provide Congress greater insights in fulfilling its roles of providing funding and conducting oversight.[18]

National Security Cutter (NSC)

Oversight issues concerning the NSC program have included whether the original design for the NSC was rugged enough to ensure that the ships could be operated for their full 30-year intended service lives; whether the electronic systems on the ship met technical standards (including some referred to as TEMPEST) for information assurance (or IA—the ability of the ship's various electronic systems to protect classified data); and cost growth in building the ships.

Coast Guard Perspective

The Coast Guard testified in April 2009 that:

> We have been actively running Bertholf through her paces during the operational test and evaluation process now underway and have received very positive feedback from her crew and the Coast Guard's operational community. Of particular note, Bertholf has conducted her first operational patrols and completed flight deck dynamic interface testing and attained interim flight deck certification. Additionally, Bertholf recently conducted towing exercises with CGC [Coast Guard cutter] Morgenthau, a fueling at sea evolution with USNS [U.S. naval ship] Kaiser, and testing of the 57mm deck gun and close-in weapon system against high-speed maneuvering surface targets and unmanned aerial vehicles....
>
> We continue to see real progress in the areas of Information Assurance, which includes TEMPEST, on the NSC. Our technical authority, with support from the Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) and NSC project managers, conducted TEMPEST certification inspections prior to preliminary acceptance of Bertholf in May 2008. Those pre-delivery inspections have contributed to building a TEMPEST baseline, which will serve as a reference point for all future

[18] Government Accountability Office, *Coast Guard[:]As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach*, GAO-09-682, July 2009, pp. 21-22.

> TEMPEST-related activities. Using the test-fix-test methodology, we now have resolved all 122 visual TEMPEST discrepancies identified during that pre-acceptance process. We are conducting additional instrumented TEMPEST surveys using a National Security Agency (NSA) approved contractor to prepare for final TEMPEST testing, which is scheduled to be conducted by SPAWAR [the Navy's Space and Naval Warfare Systems Command] and in April 2009.
>
> We continue to build on lessons learned and are making some significant improvements to the Stratton, including construction process efficiencies, enhanced functionality and better hull design. One of the most notable process improvements is a significant reduction in the number of grand blocks—multiple units stacked together in large assembly halls away from the waterfront—used to assemble the ships hull. We used 29 grand blocks to assemble Bertholf, but expect to use as few as 14 to assemble Stratton. This will enable more sub-assembly work in each grand block in a controlled environment and potentially lead to fewer construction hours compared to the process for Bertholf.
>
> Other improvements include an enhanced replenishment at sea station, which incorporates a redesigned refueling area that will be more efficient and ergonomic for cutter personnel. We are also improving the gas turbine removal route, which will make it easier to remove and repair the gas turbine modules that power the cutter. And we have enhanced the hull fatigue design on Stratton, ensuring she will achieve a 30-year fatigue life.
>
> We are currently working toward production award for the fourth NSC, Hamilton. In line with accomplished acquisition reforms and our efforts to become the lead systems integrator, the production award for Hamilton will occur outside the Integrated Coast Guard Systems (ICGS) LSI construct and include a fixed price contract structure.[19]

The Coast Guard also testified in April 2009 that:

> our reform efforts are facilitating the successful resolution of past and current project challenges.
>
> One such challenge is the fatigue lifespan of the National Security Cutter—which the Coast Guard insists be at least 30 years—meaning at least 30 years before the onset of major repairs due to normal mission use. In 2007, in accordance with the acquisition success cornerstones and working through our technical authority for engineering and logistics, the Coast Guard arranged to work with the Navy's Naval Surface Warfare Center, Carderock Division to provide independent third party analysis of fatigue design solutions developed by Coast Guard naval engineers. Using the newest available computer fatigue modeling software, Carderock reached two main conclusions in its final report, presented to the Coast Guard earlier this year.
>
> First, Carderock determined Coast Guard-developed design fatigue enhancements for the hulls of NSCs three through eight will achieve the desired 30-year fatigue life, while also recommending monitoring of localized stress in several structural details. Second, the report identifies major improvements with fatigue life after completing identified modifications to hulls one and two, but the Carderock transmittal letter recommends more data be gathered for several areas which are still modeling a less-than 30-year fatigue life.

[19] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 13-14.

> We agree with Carderock's assessments. In fact, we have already outfitted CGC Bertholf with strain gauge sensors to measure actual encountered stresses and collect data to enable more precise design modeling. Our technical authority is also reviewing each area identified by Carderock, based on Coast Guard missions and the planned operational profile of the NSC, and will develop a plan to address those concerns prior to implementing any related design fix. Plans are to gather data and modify design enhancements over a span of multiple years, even after NSCs one and two transition to full operations, as the upgrades are completed over potentially several future yard availabilities. We plan to continue to collaborate with Carderock to conduct further analysis, including possible re-validation of changes to the proposed design as a result of the recommendations in their report.
>
> Another persistent challenge is controlling costs in complex, multiple-year projects – especially those costs driven by economic factors outside the Coast Guard's control, more specifically, those types of cost increases recently impacting the National Security Cutter and Maritime Patrol Aircraft projects. Current economic conditions have seen a steady six-month decline in the cost of commodities such as nickel, steel and copper. However, when we award production contracts, our contract price reflects commodity prices at the time of award.
>
> In the case of the National Security Cutter we are executing production contracts for NSCs two and three and the long lead time materials contract for NSC four that were priced based on historically high commodity and fuel prices in effect during the summer of 2008. Likewise, when current NSC and MPA contracts were awarded, the value of the U.S. dollar was at a record low when compared to other foreign currencies, meaning all foreign components necessary for production were more expensive.[20]

GAO Perspective

A July 2009 GAO report states that the cost of the NSC program was estimated in June 2009 at $4,749 million in then-year dollars—an increase of $1,299 million, or about 38%, from the 2007 baseline estimate of $3,450 million.[21] The report states that the Coast Guard has

> made a significant investment in the NSC program before completing operational testing to demonstrate that the capabilities it is buying meet Coast Guard needs. While some testing of the NSC has already taken place, the tests conducted to date do not substitute for the complete scope of operational testing that should be the basis for further investment. For example, COMOPTEVFOR completed an operational assessment of the NSC in 2007 to identify risks to the program's successful completion of operational testing. Before the first NSC was delivered, it also underwent acceptance trials, conducted by the U.S. Navy Board of Inspection and Survey, to determine compliance with contract requirements and to test system capabilities. Since delivery of the first NSC, the Coast Guard has also conducted flight deck and combat system certifications with the assistance of the Navy. While these demonstrations and certifications provide evidence that the first NSC functions as intended, they do not fully demonstrate the suitability and effectiveness of the ship for Coast Guard

[20] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 17-18. See also Calvin Biesecker, "Coast Guard's NSC Fleet Cost Estimates Rise Due To Labor, Commodity Issues," *Defense Daily*, February 6, 2009: 2-3; Bettina H. Chavanne, "National Security Cutter Hulls Below Fatigue Life Requirements," *Aerospace Daily & Defense Report*, February 10, 2009: 1-2; Rebekah Gordon, "First Two National Security Cutters Still Face Fatigue-Life Issues," *Inside the Navy*, February 9, 2009.

[21] Government Accountability Office, *Coast Guard[:]As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach*, GAO-09-682, July 2009, p. 18.

> operations. According to officials, a test plan to demonstrate these capabilities is expected to be approved in July 2009, and COMOPTEVFOR may begin operational testing in March 2010. However, by the time full operational testing is scheduled to be completed in 2011, the Coast Guard plans to have six of eight NSCs either built or under contract.[22]

Sentinel Class Fast Response Cutter (FRC)

On March 14, 2007, the Coast Guard announced that it intended to procure the 12 FRC-B cutters, also known as the Sentinel class, directly from the manufacturer, rather than through ICGS.[23] On June 22, 2007, the Coast Guard issued a Request for Proposals (RFP) for the FRC-B, with submissions from industry due November 19, 2007. In February 2008, it was reported that the contract to be awarded by the Coast Guard could be valued at up to $1.7 billion for 34 FRC-Bs, if all options are executed.[24] On September 26, 2008, the Coast Guard announced that it had awarded an $88-million contract to Bollinger Shipyards for the design and construction of the FRC-B, which the Coast Guard now refers to as the Sentinel class. On October 7, 2008, the shipbuilding firm Marinette Marine filed a protest with GAO of the Coast Guard's contract award to Bollinger.[25] On January 12, 2009, GAO denied the protest.[26] On February 9, 2009, Marinette Marine notified the Justice Department of its intent to file a second protest, but on February 17, 2009, it was reported that Marinette had withdrawn the second protest.[27]

Coast Guard Perspective

The Coast Guard testified in April 2009 that:

> business improvements have led to a number of high profile project successes. Consider the recent award of the Fast Response Cutter (FRC) Sentinel-class patrol boat. Initially planned as part of the Deepwater program, to be delivered through Integrated Coast Guard Systems (ICGS), we took this project back within the Coast Guard to ensure full and open competition and responsible program management. We have followed our reformed acquisition processes, conducting a deliberative proposal review and award determination with integrated participation from technical authorities and the operational community. The FRC's proven parentcraft design will minimize cost and schedule risk and mitigate the patrol boat hour gap in the shortest time possible. Neither ICGS nor the Coast Guard's pre-modernized acquisition program could have accomplished this feat as efficiently or

[22] Government Accountability Office, *Coast Guard[:]As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach*, GAO-09-682, July 2009, pp. 14-15.

[23] Coast Guard press release, "Coast Guard Reassigns Deepwater Replacement Patrol Boast Acquisition Project," March 14, 2007; Calvin Biesecker, "Coast Guard Strips FRC-B Patrol Boat Acquisition From ICGS," *Defense Daily*, March 15, 2007; Renae Merle, "Coast Guard Cancels Contract," *Washington Post*, March 15, 2007; and David Stout, "Coast Guard Cancels Contract For Vessel," *New York Times*, March 15, 2007.

[24] Andrea Shalal-Esa, "US Cost Guard Sees Patrol Boat Award in May or June," *Reuters*, February 11, 2008. See also Stew Magnuson, "Not So Fast on Fast Response Cutters, Coast Guard Says," *National Defense Magazine*, February 2008.

[25] Rebekah Gordon, "Marinette Marine Files Protest Over Coast Guard's FRC Award," *Inside the Navy*, October 13, 2009.

[26] Rebekah Gordon, "GAO Denies Protest of Coast Guard Award to Bollinger for FRC," *Inside the Navy*, January 19, 2009.

[27] Amy McCullough, "Marinette Withdraws Patrol Boast Protest," *NavyTimes.com*, February 17, 2009.

> effectively, and I am confident we will build on this record of advances for future acquisitions programs as well....
>
> The most pointed example of the success of our reformed acquisition processes is Fast Response Cutter Sentinel-class patrol boat. With a total potential contract value of more than $1 billion, it was a highly competitive process, and our selection survived two post-award protests, demonstrating that our robust acquisition process was beyond reproach.
>
> As the yard stick by which to measure the success of our reformed acquisition enterprise, the Sentinel project provides a number of assurances - all built on the cornerstones for successful acquisition - for its own and future acquisition management successes, including:
>
> • Establishment and maintenance of a direct Coast Guard relationship with the contractor, rather than through a separate lead systems integrator;
>
> • Development of detailed technical requirements, and firm adherence to those requirements throughout the proposal design evaluation process and construction;
>
> • Classification of cutters to established and recognized standards (i.e., American Bureau of Shipping and High Speed Naval Vessel Rules);
>
> • Use of parent craft designs where applicable, with parent craft designer and builder co-located on engineering team;
>
> • On-site government staff at production facilities;
>
> • Fixed price contract structure;
>
> • Extensive involvement of technical authority throughout acquisition and delivery process;
>
> • Independent validation (i.e., independent cost estimates and design assessments);
>
> • Leveraging Navy and other government partnerships; and,
>
> • Ability to re-compete thru options for data and licensing.
>
> The Sentinel project has become the model for all current and future Coast Guard acquisition programs.[28]

The Coast Guard also testified in April 2009 that:

> our reform efforts are directly measured in the recent contract award for the critically needed Fast Response Cutter Sentinel-class patrol boat. Initially planned as part of the Deepwater program, to be delivered through Integrated Coast Guard Systems, we took this project back within the Coast Guard to ensure full and open competition and responsible program management. We have abided strictly to our reformed acquisition processes, conducting a deliberative proposal review and award determination with integrated participation from technical authorities and the operational community. Based on the cornerstones for successful acquisition, this project also adheres to MSAM guidelines, full reporting,

[28] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 2-3, 8-9.

> independent assessment and validation, leveraging internal and external partnerships, and robust departmental oversight.[29]

GAO Perspective

A July 2009 GAO report stated:

> Based on its determination that the need for the capabilities to be provided by the Fast Response Cutter and C4ISR is pressing, the Coast Guard has contracted for these capabilities without having in place all acquisition documentation required by the MSAM. This situation puts the Coast Guard at risk for cost overruns and schedule slips if it turns out that what it is buying does not meet its requirements. For example, in September 2008, after conducting a full and open competition, the Coast Guard awarded an $88.2 million contract to Bollinger Shipyards, Inc. for the design and construction of a lead Fast Response Cutter. Prior to the award, however, the Coast Guard did not have an approved operational requirements document or test plan for this asset as required by the MSAM process. Recognizing the risks inherent in this approach, the Coast Guard developed a basic requirements document and an acquisition strategy based on procuring a proven design. These documents were reviewed and approved by the Coast Guard's capabilities directorate, the engineering and logistics directorate, and chief of staff before the procurement began. The Coast Guard's next acquisition decision event is scheduled for the first quarter of fiscal year 2010 to obtain DHS approval for low-rate initial production. According to officials, the Coast Guard intends to submit an operational requirements document and test plan to DHS for this acquisition decision event. With plans to exercise contract options for hulls 2 through 8 in fiscal year 2010, the Coast Guard's aggressive schedule leaves little room for unforeseen problems. Program risks are compounded by the fact that the Coast Guard plans to have at least 12 cutters either delivered or under contract prior to the scheduled completion of operational testing in fiscal year 2012, before it has certainty that what it is buying meets Coast Guard needs.[30]

110/123-Foot Patrol Boat Modernization

As an earlier part of the Deepwater program, the Coast Guard initiated an effort to modernize its existing 110-foot Island class patrol boats, so that they could remain in service pending the delivery of replacement Deepwater craft. Among other things, the modernization increased the length of the boats to 123 feet. The effort is thus referred to variously as the 110-foot modernization program, the 123-foot modernization program, or the 110/123-foot modernization program.

The initial eight boats in the program began to develop significant structural problems soon after completing their modernizations. The Coast Guard removed the boats from service and canceled the program, having spent close to $100 million on it. On May 17, 2007, the Coast Guard issued a letter to ICGS revoking its previous acceptance of the eight modernized boats—an action intended to facilitate Coast Guard attempts to recover from ICGS funds that were spent on the

[29] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, pp. 15-16.

[30] Government Accountability Office, *Coast Guard[:]As Deepwater Systems Integrator, Coast Guard Is Reassessing Costs and Capabilities but Lags in Applying Its Disciplined Acquisition Approach*, GAO-09-682, July 2009, p. 15.

eight converted boats.[31] On January 7 and 8, 2008, it was reported that the Coast Guard was seeking a repayment of $96.1 million from ICGS for the patrol boats and had sent a letter to ICGS on December 28, 2007, inviting ICGS to a negotiation for a settlement of the issue.[32] Some observers questioned the strength of the government's legal case, and thus its prospects for recovering the $96.1 million or some figure close to that.[33]

The Coast Guard testified in April 2009 that:

> With regard to the 123-foot patrol boats, the Department of Justice and the DHS-OIG [the DHS Office of the Inspector General] continue their investigation into the project. The qui tam [legal] action involving the patrol boats is still on-going. The Department of Justice has not yet made yet made a determination whether it will intervene in that action. The Coast Guard continues its support of the DOJ and DHS-OIG investigation.
>
> Simultaneous to our support of the DOJ investigation, we have also undertaken an independent engineering analysis through the Navy's Naval Sea Systems Command, which we expect to be completed sometime this summer. Additionally, we are working with the Department of Justice to release five of the eight patrol boats to salvage systems, equipment and parts still of value to the Coast Guard. The remaining three cutters would remain untouched for evidence purposes in support of the ongoing investigations.[34]

Revolving Door and Potential for Conflicts of Interest

The so-called revolving door, which refers to the movement of officials between positions in government and industry, can create benefits for government and industry in terms of allowing each side to understand the other's needs and concerns, and in terms of spreading best practices from one sector to the other. At the same time, some observers have long been concerned that the revolving door might create conflicts of interest for officials carrying out their duties while in government positions. A March 25, 2007, news article stated in part:

> Four of the seven top U.S. Coast Guard officers who retired since 1998 took positions with private firms involved in the Coast Guard's troubled $24 billion fleet replacement program, an effort that government investigators have criticized for putting contractors' interests ahead of taxpayers'.

[31] Dan Caterinicchia, "Coast Guard Wants Refund For Ships," *Associated Press*, May 17, 2007; Renae Merle, "Coast Guard Seeks Deepwater Refund," *Washington Post*, May 18, 2007: D3.

[32] See Andrea Shalal-Esa, "Lockheed, Northrop Asked To Pay $96 Mln For Bad Boats," *Reuters*, January 7, 2008; Geoff Fein, "Coast Guard Invites ICGS To Negotiate A Settlement Over 123-Foot Boat Issue," *Defense Daily*, January 8, 2008; Dan Caterinicchia, "Gov't Wants $96M Refund For Faulty Ships," *Business Week*, January 8, 2008. See also Emelie Rutherford, "Coast Guard Wants $96 Million From Deepwater Team For Bad Ships," *Inside the Navy*, January 14, 2008.

[33] See, for example, Geoff Fein, "Coast Guard Invites ICGS To Negotiate A Settlement Over 123-Foot Boat Issue," *Defense Daily*, January 8, 2008. See also Geoff Fein, "Rep. Taylor Chides Coast Guard Over Effort To Recoup Cutter Conversion Funds," *Defense Daily*, February 27, 2008.

[34] Statement of Admiral Thad W. Allen, Commandant [of the Coast Guard], on the Coast Guard and Acquisitions before the Committee on Appropriations Subcommittee on Homeland Security, U.S. House of Representatives, 22 April 2009, p. 18. See also Bettina H. Chavanne, "Lawmakers Still Pressing USCG On Patrol Boat Conversion," *Aerospace Daily & Defense Report*, March 25, 2009: 3.

> They weren't the only officials to oversee one of the federal government's most complex experiments at privatization, known as Deepwater, who had past or subsequent business ties to the contract consortium led by industry giants Northrop Grumman and Lockheed Martin.
>
> The secretary of transportation, Norman Y. Mineta, whose department included the Coast Guard when the contract was awarded in 2002, was a former Lockheed executive. Two deputy secretaries of the Department of Homeland Security, which the Coast Guard became part of in 2003, were former Lockheed executives, and a third later served on its board.
>
> Washington's revolving-door laws have long allowed officials from industry giants such as Lockheed, the nation's largest defense contractor, to spend parts of their careers working for U.S. security agencies that make huge purchases from those companies, though there are limits.
>
> But Deepwater dramatizes a new concern, current and former U.S. officials said: how dwindling competition in the private sector, mushrooming federal defense spending and the government's diminished contract management skills raise the stakes for potential conflicts of interest.
>
> Deepwater also illustrates how federal ethics rules carve out loopholes for senior policymakers to oversee decisions that may benefit former or prospective employers. These include outsourcing strategies under which taxpayers bear most of the risks for failure, analysts said.
>
> There is no sign that any of the retired admirals or former Lockheed officials did anything illegal.
>
> But the connections between the agencies and the contractors have drawn the attention of the DHS inspector general, Richard L. Skinner. "That is on our radar screen," he said. "It's something we are very sensitive to."[35]

Potential Options for Congress

In addition to approving or modifying the Coast Guard's requests for FY2011 acquisition funding Deepwater programs, potential options for Congress regarding the Deepwater program include but are not limited to the following:

- continue to track the Coast Guard's management and execution of Deepwater acquisition programs, including implementation of reform actions announced by the Coast Guard itself or recommended by GAO;
- modify reporting requirements for Deepwater acquisition programs;
- prohibit the obligation or expenditure of some or all FY2011 funding for Deepwater acquisition programs until the Coast Guard or DHS takes certain actions or makes certain certifications regarding the Deepwater program; and

[35] Spencer S. Hsu and Renae Merle, "Coast Guard's Purchasing Raises Conflict-Of-Interest Flags," *Washington Post*, March 25, 2007.

- pass legislation to codify acquisition reforms for Deepwater programs that the Coast Guard has already announced, or to change acquisition policies and practices for Deepwater acquisition programs in other ways.

Legislative Activity in 111th Congress

Summary of Appropriations Action on FY2011 Funding Request

The Coast Guard's proposed FY2011 budget requests $1,112.5 million in acquisition funding for Deepwater programs, including $101.0 million for aircraft, $856.0 million for surface ships and boats, and $155.5 million for other items. **Table 4** summarizes appropriations action on this funding request.

Table 4. Action on FY2011 Deepwater Acquisition Funding Request

(in millions of dollars, rounded to nearest tenth)

Program	Request	HAC	SAC	Appropriations conference
Maritime Patrol Aircraft (MPA)	40.0		49.0	
HH-60 Conversion Projects	32.0		32.0	
HH-65 Conversion/Sustainment Projects	0		0	
HC-130H Conversion/Sustainment Projects	25.0		25.0	
HC-130J Fleet Introduction	4.0		4.0	
Unmanned Aircraft Systems	0		2.0	
Subtotal aircraft	***101.0***		***112.0***	
National Security Cutter (NSC)	538.0		648.0	
Offshore Patrol Cutter (OPC)	45.0		45.0	
Fast Response Cutter (FRC)	240.0		240.0	
Deepwater small boats	3.0		3.0	
Medium-endurance cutter sustainment	30.0		30.0	
Patrol boats sustainment	0		0	
Subtotal surface ships	***856.0***		***966.0***	
Government program management	45.0		45.0	
Systems engineering and integration	29.0		29.0	
C4ISR[a]	30.5		30.5	
Logistics	50.0		50.0	
Technology obsolescence prevention	1		1.0	
Subtotal other	***155.5***		***155.5***	
TOTAL	**1,112.5**		**1,233.5**	

Sources: FY2011 Coast Guard budget submission and SAC report (S.Rept. 111-222 of July 19, 2010) on the FY2011 DHS appropriations bill (S. 3607).

Note: HAC is House Appropriations Committee; SAC is Senate Appropriations Committee.

a. Command and control, communications, computers, intelligence, surveillance and reconnaissance.

FY2011 DHS Appropriations Bill (S. 3607)

Senate

As shown in **Table 4**, the Senate Appropriations Committee, in its report (S.Rept. 111-222 of July 19, 2010) on S. 3607, recommends a total of $1,233.5 million in the Coast Guard's AC&I account for Deepwater acquisition programs. The report states:

> DEEPWATER FUNDING
>
> The Committee recommends $1,233,502,000 for Deepwater, $121,000,000 above the amount requested and $79,222,000 above the fiscal year 2010 level. Details of major procurements under this program and other acquisitions are provided below.
>
> MARITIME PATROL AIRCRAFT
>
> The Committee recommends $49,000,000 for the Maritime Patrol Aircraft [MPA], $9,000,000 above the budget request. Funds are recommended for the acquisition of one aircraft (#15), which will provide an additional 1,200 hours to address the Coast Guard's MPA flight-hour gap. The amount above the request funds an additional mission system pallet [MSP] and sparing. The Coast Guard is behind schedule in producing MSPs for its fleet of MPAs. Closing this gap will accelerate the deployment of fully missionized aircraft to the field.
>
> UNMANNED AIRCRAFT SYSTEMS
>
> In addition to funding included for the ship-based Unmanned Aircraft Systems [UAS] project in the Committee's recommendation for "Research, Development, Test, and Evaluation," the Committee includes $2,000,000 in this account to accelerate pre-acquisition activities in accordance with the Coast Guard's Major Systems Acquisition Manual "Analyze/Select" Phase for the ship-based UAS.
>
> NATIONAL SECURITY CUTTER
>
> The recommendation includes $648,002,000 for the National Security Cutter [NSC] acquisition, $110,000,000 above the budget request. The Committee disagrees with the administration's decision to delay funding for the 6th NSC. The NSC program, which is already 2 years behind schedule, will be further delayed without additional funds. The 12 legacy cutters the NSC will replace are frequently out of service due to unscheduled maintenance requirements. These 12 cutters lose an average of 250 operational days per year due to unplanned maintenance, which is directly impacting the Coast Guard's ability to perform its many missions. Funds are provided to complete production of NSC #5, as requested, and for long lead-time materials for NSC #6, which avoids additional project costs and recapitalization delays associated with a break in NSC production. Funding long lead-time material for NSC #6 in conjunction with production funding for NSC #5 is consistent with the Department of Homeland Security's approved Acquisition Program Baseline for the NSC program.
>
> The Committee strongly supports the procurement of one National Security Cutter per year until all eight planned ships are procured. The continuation of production without a break will ensure that these ships, which are vital to the Coast Guard's mission, are procured at the lowest cost, and that they enter the Coast Guard fleet as soon as possible.

FAST RESPONSE CUTTER

The Committee recommends $240,000,000 for the Coast Guard's Fast Response Cutter [FRC], as requested. This funding will allow the Coast Guard to acquire four FRC hulls (9-12). The first FRC is scheduled for delivery in fiscal year 2011 and will be fully operational in fiscal year 2012. The Committee expects the Coast Guard to continue quarterly briefings to the Committee on the status of this procurement, including critical decision points and dates; status of service life extensions of the existing 110-foot patrol boats; and patrol boat operational metrics.

MEDIUM ENDURANCE CUTTER SUSTAINMENT

The recommendation includes $30,000,000 for the Medium Endurance Cutter [WMEC] Sustainment Project, as requested. Funding will complete sustainment work on three 270-foot cutters. This funding is intended to improve mission effectiveness of these vessels to allow them to meet their goals for program availability through the remainder of their service lives. This program has been successful in significantly reducing the number of major equipment failures on these vessels resulting in a much higher percentage of time they are fully mission capable. The Committee is concerned that the total funding in the fiscal year 2011-15 Capital Investment Plan for the WMEC Sustainment project is $20,700,000 less than the project's approved Acquisition Program Baseline cost estimate. Work items will be scaled back and the last two 270-foot WMECs will not undergo the sustainment project. Given the success of this program in mitigating fleet equipment failures and delays in fielding a replacement asset (Offshore Patrol Cutter), the Committee encourages the Coast Guard to reconsider this decision as it develops its fiscal year 2012 budget request.

PATROL BOAT SUSTAINMENT

No funding is identified in the fiscal year 2011-15 Capital Investment Plan for patrol boat sustainment due to the administration's decision to de-scope the project. This decision means that 17 instead of 20 patrol boats will undergo sustainment. While the Coast Guard is in the process of acquiring 58 FRCs to replace the legacy patrol fleet (which has well surpassed its expected service life), only 22 are expected to be delivered by the end of fiscal year 2015. This should reinforce the need to sustain the legacy fleet until replacements are deployed. The Committee encourages the Coast Guard to reconsider this decision as it develops its fiscal year 2012 budget request.

OFFSHORE PATROL CUTTER

The recommendation includes $45,000,000 for the Offshore Patrol Cutter [OPC], as requested. Funding provides for pre-acquisition activities. The Committee expects the Coast Guard to provide quarterly briefings to the Committee on the status of this procurement, including critical decision points and dates. Further, in accordance with section 511 of this act, no funds may be used in contravention of the Buy American Act, including the procurement of main propulsion engines for the OPC….

DEEPWATER EXPENDITURE PLAN

The Coast Guard is directed to brief the Committee on its fiscal year 2011 Deepwater expenditure plan no later than 60 days after the date of enactment of this act. The briefing

shall be consistent with the Deepwater expenditure plan requirements set forth in Public Law 110–329.[36]

QUARTERLY ACQUISITION REPORTS

The Commandant is directed to continue to submit to the Committee quarterly acquisition and mission emphasis reports consistent with deadlines articulated under section 360 of division I of Public Law 108–7.[37] The Coast Guard shall continue submitting these reports

[36] P.L. 110-329, a consolidated security, disaster assistance, and continuing appropriations act for FY2009, states, in the paragraph that makes appropriations for the Coast Guard's AC&I account, that the funds are made available, provided, among other things,

> That $350,000,000 of the funds provided for the Integrated Deepwater Systems program may not be obligated until the Committees on Appropriations of the Senate and the House of Representatives receive directly from the Coast Guard and approve a plan for expenditure that—
>
> (1) defines activities, milestones, yearly costs, and life cycle costs for each new procurement of a major asset, including an independent cost estimate for each;
>
> (2) identifies life cycle staffing and training needs of Coast Guard project managers and procurement and contract staff;
>
> (3) identifies competition to be conducted in, and summarizes the approved acquisition strategy for, each procurement;
>
> (4) includes a certification by the Chief Human Capital Officer of the Department of Homeland Security that current human capital capabilities are sufficient to execute the expenditure plan;
>
> (5) includes an explanation of each procurement that involves an indefinite delivery/indefinite quantity contract and explains the need for such contract;
>
> (6) identifies individual project balances by fiscal year, including planned carryover into fiscal year 2010 by project;
>
> (7) identifies operational gaps by asset and explains how funds provided in this Act address the shortfalls between current operational capabilities and requirements;
>
> (8) includes a listing of all open Government Accountability Office and Office of Inspector General recommendations related to the program and the status of Coast Guard actions to address the recommendations, including milestones for fully addressing them;
>
> (9) includes a certification by the Chief Procurement Officer of the Department that the program has been reviewed and approved in accordance with the investment management process of the Department, and that the process fulfills all capital planning and investment control requirements and reviews established by the Office of Management and Budget, including Circular A-11, part 7;
>
> (10) identifies use of the Defense Contract Audit Agency;
>
> (11) includes a certification by the head of contracting activity for the Coast Guard and the Chief Procurement Officer of the Department that the plans for the program comply with the Federal acquisition rules, requirements, guidelines, and practices, and a description of the actions being taken to address areas of non-compliance, the risks associated with them along with plans for addressing these risks, and the status of their implementation;
>
> (12) identifies the use of independent validation and verification; and
>
> (13) is reviewed by the Government Accountability Office….

[37] Section 360 of Division I of P.L. 108-7, a consolidated appropriations resolution for FY2003, states:

> SEC. 360. None of the funds provided in this Act or prior Appropriations Acts for Coast Guard `Acquisition, construction, and improvements' shall be available after the fifteenth day of any quarter of any fiscal year, unless the Commandant of the Coast Guard first submits to the House and Senate Committees on Appropriations a quarterly report on the agency's mission hour emphasis and a quarterly report on all major Coast Guard acquisition projects including projects executed for the Coast Guard by the United States Navy and vessel traffic service projects: Provided, That such acquisition reports shall include an acquisition schedule, estimated current and year funding requirements, and a schedule of anticipated obligations and outlays for each major acquisition project: Provided further, That such acquisition reports shall rate on a relative scale the

(continued...)

> in the same format as required in fiscal year 2010. In addition, for each asset covered, the reports should present the objective for operational hours the Coast Guard expects to achieve, the gap between that objective and current capabilities, and how the acquisition of the specific asset closes the gap. The information should include a discussion of how the Coast Guard calculated the operational hours, an explanation on risks to mission performance associated with the current shortfall, and the operational strategy to mitigate such risks.
>
> GAO DEEPWATER REVIEW
>
> The GAO is directed to continue its oversight of the Deepwater program, including a continued focus on acquisitions nearing critical decision points and Coast Guard progress in functioning as the systems integrator. GAO has informed the Committee that the Coast Guard has not completed its planned fleet mix analysis that was intended to revalidate the quantities of assets needed to meet mission needs. The Coast Guard is to complete this analysis and submit the results no later than 120 days after the date of enactment of this act. GAO shall provide an assessment of the report as part of its annual review of the Deepwater program. (Pages 84-87; material in brackets as in original)

The report also states:

> The Committee understands a review of the Coast Guard's Deepwater cutter fleet recapitalization program is being conducted by the Office of the Chief Financial Officer's Program Analysis and Evaluation Division [PA&E]. PA&E shall brief the Committee on this effort no later than 90 days after the date of enactment of this act. (Page 21; material in brackets as in original)

The report also states:

> REPORTING REQUIREMENTS WITHOLDING
>
> In an effort to encourage timely submissions to the Committees of materials necessary for robust and informed oversight, the Committee withholds $75,000,000 from obligation from the Coast Guard's "Headquarters Directorates" until the Quarterly Acquisition Report for the second quarter of fiscal year 2011, Revised Deepwater Implementation Plan, and a comprehensive 5-year Capital Investment Plan for fiscal years 2012-2016 have been submitted. (Pages 80-81)

Coast Guard Authorization Act of 2010 (H.R. 3619)

H.R. 3619 was passed by the House on October 23, 2009, and by the Senate on May 7, 2010. The Senate-passed version substitutes the text of S. 1194 (see below), with modifications.

(...continued)

> cost risk, schedule risk, and technical risk associated with each acquisition project and include a table detailing unobligated balances to date and anticipated unobligated balances at the close of the fiscal year and the close of the following fiscal year should the Administration's pending budget request for the acquisition, construction, and improvements account be fully funded: Provided further, That such acquisition reports shall also provide abbreviated information on the status of shore facility construction and renovation projects: Provided further, That all information submitted in such mission hour emphasis and acquisition reports shall be current as of the last day of the preceding quarter.

House

In H.R. 3619 as reported by the House Transportation and Infrastructure Committee (H.Rept. 111-303 [Part 1] of October 16, 2009), Section 101(2)(b) would authorize $1,194.78 million in Acquisition, Construction, and Improvements (AC&I) funding for Deepwater acquisition programs. Section 1316 requires an assessment of needs for additional Coast Guard presence in high-latitude regions, including, among other things, "an assessment of the high latitude operating capabilities of all current Coast Guard assets, including assets acquired under the Deepwater program." Title V would reform Coast Guard acquisition, including Deepwater acquisition. H.Rept. 111-303 (Part 1) discusses Title V on pages 86-90.

Senate

On May 7, 2010, the Senate passed S.Amdt. 3912, which amended H.R. 3619 by substituting the text of S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee (see below), with modifications. The Senate then passed H.R. 3619 the same day.

Coast Guard Authorization Act for Fiscal Years 2010 and 2011 (S. 1194)

Senate

In S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee S.Rept. 111-95 of October 30, 2009), Section 101(2) would authorize $1,383.98 million for the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account, which funds both Deepwater acquisition programs and other Coast Guard acquisition programs. Title V would reform Coast Guard acquisition, including Deepwater acquisition. S.Rept. 111-95 discusses Deepwater acquisition programs in general on pages 3-5, and Title V on pages 18-23.

On May 7, 2010, the Senate passed S.Amdt. 3912, which amended H.R. 3619 (see above) by substituting the text of S. 1194 as reported by the Senate Commerce, Science, and Transportation Committee, with modifications. The Senate then passed H.R. 3619 the same day.

Coast Guard Acquisition Reform Act of 2009 (H.R. 1665)

House

H.R. 1665, which was passed by the House on July 29, 2009, would reform Coast Guard acquisition, including Deepwater acquisition. The House Transportation and Infrastructure Committee's report on the bill (H.Rept. 111-215 of July 20, 2009) discusses the Deepwater program on pages 1-8.

FY2010 DHS Appropriations Act (H.R. 2892/P.L. 111-83)

House

In addition to making funding recommendations for FY2010, the House Appropriations Committee's report (H.Rept. 111-157 of June 16, 2009) on H.R. 2892 stated the following regarding Deepwater acquisition programs:

> QUARTERLY REPORTS ON ACQUISITION PROJECTS AND MISSION EMPHASIS
>
> The Committee continues to find Coast Guard's quarterly acquisition reports and mission emphasis reports extremely useful, and as such, directs Coast Guard to continue submitting these comprehensive reports in a timely fashion. The Coast Guard is directed to continue to include in the acquisition reports information on small boat purchases and leases made within the Operating Expenses appropriation.
>
> STATUTORY REPORTING REQUIREMENTS
>
> The Committee is frustrated that the Coast Guard failed to provide several reports required in law that were to accompany the 2010 budget request. Specifically, P.L. 110–329 requires the Coast Guard to submit a Deepwater expenditure plan and a capital investment plan, yet neither was received. While these are not simple documents, these are not new requests. The Coast Guard has been required to submit a capital investment plan every year since the agency moved to DHS. Similarly, the Coast Guard has been required to submit an annual expenditure plan using the fiscal year 2006 revised Deepwater Implementation Plan as the base document since fiscal year 2007. These reports are critical because they provide the Committee with needed data to assess the effectiveness of one of the country's largest annual investments in homeland security. The explanation provided in the budget justification for the lack of data from a Capital Investment Plan is wholly inadequate in satisfying the requirement. Although the Committee had chosen not to carry a withholding provision in the bill this year out of consideration for possible dislocations in the reporting process due to the transition of administrations, these documents should be provided to the Committee immediately, or there is little question that the question of withholdings will be revisited.
>
> DEEPWATER
>
> The Committee recommends $1,014,980,000 for Deepwater, $36,500,000 below the amount requested and $19,014,000 below the amount provided in fiscal year 2009.
>
> MARITIME PATROL AIRCRAFT
>
> The Maritime Patrol Aircraft (MPA) serves as the Coast Guard's lead fixed-wing extended surveillance and quick response platform. The Committee recommends $138,500,000 for two additional MPAs, mission pallets, spares, and logistics support as requested. The Committee does not include $36,500,000 requested for accelerating the purchase of a MPA flight simulator ahead of its original schedule.
>
> MARITIME SURVEILLANCE
>
> The Committee has consistently voiced its concerns over the gap between the Coast Guard's stated mission hour needs for maritime surveillance and available resource hours of surveillance assets. These concerns are based upon the Coast Guard's quantitative analysis of

mission requirements and repeated testimony by operational personnel and security experts on the need for increased maritime surveillance capabilities, especially in the source and transit zones of the eastern Pacific Ocean and the Caribbean basin. The Committee is pleased the fiscal year 2010 budget request partially addresses this issue through funding for aircraft acquisition, conversion and sustainment. However, the Committee is concerned by the absence of requested funding to support operational testing and evaluation of either land-based or cutter-based unmanned aerial systems (UAS) in fiscal year 2010 given the unrealized potential of such assets for enhanced maritime surveillance. Furthermore, the Committee notes that even with these additional surveillance resources requested for fiscal year 2010, the Coast Guard's available maritime surveillance hours will only be at approximately 65 percent of stated mission needs. The Coast Guard is directed to report to the Committee no later than November 1, 2009, on its planned efforts to leverage available interagency resources and other temporary surveillance capabilities, including the operational testing and evaluation of UAS, in fiscal year 2010 to address the maritime surveillance mission hour gap.

NATIONAL SECURITY CUTTER

The National Security Cutter (NSC) is the replacement for the 378-foot High Endurance Cutter, and as such, is capable of worldwide operations, extended on-scene presence, long transit and forward deployments. The Committee recommends $281,480,000 for the NSC as requested, $72,220,000 below the amount provided in fiscal year 2009. The Committee does this despite persistent concerns regarding cost controls and the production schedule for this class of cutter. These concerns are predicated on the fact that the cost of the fourth NSC is more than $73,700,000 and fourteen percent higher than the previous two cutters in this class and that the Coast Guard's current schedule delays the award for the fifth NSC until 2011. The Committee is troubled by a projected production schedule for the remaining NSCs that delays fulfillment of known operational needs and appears to enable further cost growth and delays in cutter delivery. These concerns are exacerbated by the absence of requested funding for known, immediate maintenance needs of the legacy high endurance cutters (HECs) in fiscal year 2010. The Committee views the confluence of the NSC's extended production schedule with the uncertain long-term availability of the legacy HEC fleet as a detriment to offshore maritime security operations and directs the Coast Guard to: prioritize maintenance needs of the HEC fleet, as addressed elsewhere in this report, and inform the Committee no later than July 1, 2009, of its efforts to put in place a contractual structure for the remaining NSCs that will provide expeditious delivery at the least cost and risk to the taxpayer.

OFFSHORE PATROL CUTTER

The Offshore Patrol Cutter (OPC) is the replacement vessel for the current 210-foot and 270-foot Medium Endurance cutters. The Committee provides the requested $9,800,000 to complete alternatives analysis and required acquisition documentation for the OPC, as well as beginning Phase I of preliminary design. The Committee understands from the Coast Guard that this approach will help reduce the risk of program cost growth. Given that such cost growth was behind the decision to stop work on the initial OPC, the Coast Guard is directed to brief the Committee on the result of the requirements analysis prior to initiating Phase I work on the new OPC.

FAST RESPONSE CUTTER

The Fast Response Cutter (FRC) is the more capable replacement for the Coast Guard's legacy 110-foot patrol boats. The Committee provides the requested $243,000,000 for full-rate production of four FRCs, $127,700,000 above the amount provided in fiscal year 2009. The Coast Guard is expected to take delivery of the first FRC in fiscal year 2010. The

Committee directs the Coast Guard to include in its quarterly briefings to the Committee on the FRC's progress information on the effectiveness of its various efforts to control cost growth.

LEGACY CUTTER SUSTAINMENT

The Committee continues to be concerned about legacy cutter sustainment as new vessels are being slowly brought into service. The Committee understands that the funding level in the request for cutter sustainment allows for these programs to continue on schedule, with the shipyards working at optimal capacity. The Committee is pleased by the increases in vessel availability resulting from the sustainment programs in place for patrol boats and Medium-Endurance Cutters. Coast Guard reporting indicates that the Medium Endurance Cutter Sustainment Program has increased the fully-capable mission availability of 270-foot cutters by 62 percent, and 210-foot cutters by 75 percent. Also, the Committee notes that attention to critical maintenance needs in the 378-foot High Endurance Cutter fleet has resulted in more marginal improvements in availability, and urges the Coast Guard to move ahead on a more robust sustainment option for the High Endurance Cutter.

DEEPWATER REVIEW AND CAPITAL INVESTMENT PLAN

The Committee notes that neither the Secretary's review of the Revised Deepwater Implementation Plan nor the future-years capital investment plan mandated in P.L. 110–329 were provided with the budget request. The Committee strongly urges the Department to produce those items expeditiously, and make sure that similar mandates carried in this legislation are met. (Pages 81-84)

Senate

In addition to making funding recommendations for FY2010, the Senate Appropriations Committee's report (S.Rept. 111-31 of June 18, 2009) on the FY2010 DHS appropriations bill (S. 1298) stated the following regarding Deepwater acquisition programs:

DEEPWATER FUNDING

The Committee recommends $1,194,780,000 for Deepwater, $143,300,000 above the amount requested and $160,786,000 above the fiscal year 2009 level. Details of major procurements under this program and changes to the request are provided below.

MARITIME PATROL AIRCRAFT

The Committee recommends $175,000,000 for the Maritime Patrol Aircraft [MPA], the same level as proposed in the budget request. This funding will allow the Coast Guard to acquire 2 aircraft (13 and 14), mission systems, and a flight simulator. The funds will address the Coast Guard's MPA flight-hour gap by providing 2,400 additional MPA hours every year.

NATIONAL SECURITY CUTTER

The recommendation includes $389,480,000 for the National Security Cutter [NSC] acquisition, $108,000,000 above the budget request. The Committee disagrees with the administration's decision to delay funding for the 5th NSC. The NSC program, which is already 2 years behind schedule, will be further delayed without additional funds. The 12 legacy cutters the NSC will replace are frequently out of service due to unscheduled maintenance requirements. These 12 cutters lose an average of 250 operational days per year due to unplanned maintenance, which is directly impacting the Coast Guard's ability to

perform its many missions. Funds are provided to complete production of NSC #4 and for long-lead time materials for NSC #5, which ensures the Coast Guard is properly positioned to negotiate a best-value, fixed-price contract for NSC #4 and avoids additional project costs and recapitalization delays associated with a break in NSC production.

The Committee strongly supports the procurement of one National Security Cutter per year until all eight planned ships are procured. The continuation of production without a break will ensure that these ships, which are vital to the Coast Guard's mission, are procured at the lowest cost, and that they enter the Coast Guard fleet as soon as possible.

FAST RESPONSE CUTTER

The Committee recommends $243,000,000 for the Coast Guard's ''Fast Response Cutter'' [FRC–B], the same level as proposed in the budget request. This funding will allow the Coast Guard to acquire four FRC–B hulls (5–8). The first FRC–B is scheduled for delivery in the third quarter of fiscal year 2011 and will be fully operational in fiscal year 2012. The Committee expects the Coast Guard to continue quarterly briefings on the status of this procurement, including critical decision points and dates, planned service life extensions of the existing 110-foot patrol boats, and patrol boat operational metrics.

MISSION EFFECTIVENESS PROJECT

The recommendation includes $54,100,000 for the Mission Effectiveness Project, the same level as proposed in the budget request. Of this amount, $31,100,000 is for sustainment of three 270-foot and two 210-foot medium endurance cutters, and $23,000,000 is for sustainment of three 110-foot legacy patrol boats. This funding is intended to improve mission effectiveness of these vessels to allow them to meet their goals for program availability through the remainder of their service lives. This program has been successful in significantly reducing the number of major equipment casualties on these vessels resulting in a much higher percentage of time they are fully mission capable.

OFFSHORE PATROL CUTTER

The recommendation includes $9,800,000 for the Offshore Patrol Cutter [OPC], the same level as proposed in the budget request. The Committee directs the Coast Guard to brief the Committee by April 30, 2010, on the results of the alternatives analysis for the OPC....

POLAR ICEBREAKER SUSTAINMENT

The Committee recommends $32,500,000 above the budget request to complete the reactivation and service life extension of Coast Guard Cutter Polar Star. Of this amount, $5,200,000 is funded in the AC&I direct personnel costs PPA. Returning Polar Star to operational status is vital to ensuring the U.S. Government has the ability to project U.S. sovereignty and protect the broad range of security, economic, and environmental interests in the Arctic and Antarctic. Within this amount, the Coast Guard shall begin survey and design and conduct a business case analysis for either a new heavy polar icebreaker class or a major service life extension project for existing heavy icebreakers. The only existing heavy polar class icebreaker, the Polar Sea, has only 7 years remaining in its useful life....

HIGH ENDURANCE CUTTER SUSTAINMENT

Delays in the planned delivery of National Security Cutters have created a sustainment problem for the Coast Guard in maintaining its fleet of legacy High Endurance Cutters. The Committee is aware of efforts to assess the need and scope for a maintenance plan for the 378-foot High Endurance Cutter fleet. The Committee includes $8,000,000 above the request

for pre-acquisition survey and design to determine the requirements for a maintenance effectiveness project. A similar program for the Medium Endurance Cutter fleet has been highly successful in increasing its fully-capable mission availability. The Coast Guard shall brief the Committee no later than 60 days after the date of enactment of this act on preliminary plans for this effort.

AC&I PERSONNEL

The Committee provides $105,200,000 for personnel and related support, $5,200,000 above the budget request. These additional FTEs are necessary for the Coast Guard to perform the systems integrator role for the Deepwater Program and to execute traditional acquisition projects. This amount also includes personnel related costs to reactivate the Polar Star.

The Committee is well aware of the limited pool of certified and experienced acquisition professionals. Therefore, the Committee encourages the Coast Guard to work with the appropriate authorizing committees to ensure that its hiring authorities are on par with those of the other armed services.

According to recent testimony by the Government Accountability Office, "there are approximately 200 contractor employees in support of the acquisition directorate—representing 24 percent of its total acquisition workforce." Some of these contractors are performing core Government acquisition functions. The Coast Guard shall brief the Committee no later than 60 days after the date of enactment of this act on efforts to reduce reliance on contractors performing inherently governmental work....

DEEPWATER EXPENDITURE PLAN

The Coast Guard is directed to brief the Committee on its fiscal year 2010 deepwater expenditure plan not later than 60 days after the date of enactment of this act. The briefing shall be consistent with the Deepwater expenditure plan requirements set forth in Public Law 110–329.

QUARTERLY ACQUISITION REPORTS

The Commandant is directed to continue to submit quarterly acquisition and mission emphasis reports consistent with deadlines articulated under section 360 of division I of Public Law 108–7 and the fiscal year 2008 joint explanatory statement. The Committee notes that the Coast Guard has adopted the practice of comparing cost, schedule, and performance estimates against the most recently approved baseline. This approach provides an incomplete assessment of an acquisition's progress against the original baseline. Therefore, the report shall compare current estimates against the original baseline and the most recent baseline, if available. This method is consistent with Department of Defense acquisition reporting policy and is recommended by the Government Accountability Office. When reporting on "key project documents," it should be noted if approved documentation differs from that required by the Major Systems Acquisition Manual or the Department's Acquisition Review guidance. The reports should also indicate if a test and evaluation master plan has been approved for an asset. Finally, the acquisition reports shall include a "stoplight chart" that tracks key performance parameters of each asset through developmental and operational testing. Because the Coast Guard consistently fails to meet quarterly submission deadlines, the Committee withholds $30,000,000 from Headquarter Directorates until the second quarter report is submitted.

GAO DEEPWATER REVIEW

> The GAO is directed to continue its oversight of the Deepwater program. GAO's focus shall include an assessment of the Coast Guard's conversion projects for the HH–60 and HH–65 platforms. The Committee is concerned with the schedule for both programs. According to the Coast Guard's quarterly acquisition reports, the schedule for the HH–60 program is at "significant risk" and is not expected to meet projected milestones. The same reports show a moderate schedule risk for the HH–65 conversion program. Delays in the HH–65 conversion program have resulted in an unobligated balance in excess of $100,000,000 and the Coast Guard expects to carryover $58,729,000 into fiscal year 2010. (Pages 77-80)

Conference

In H.R. 2892/P.L. 111-83 of October 28, 2009 as reported by the conference committee (H.Rept. 111-298 of October 13, 2009), the paragraph that appropriates funds for the Coast Guard's Operating Expenses (OE) account states:

> That of the funds provided under this heading, $50,000,000 shall be withheld from obligation for Headquarters Directorates until: (1) the fiscal year 2010 second quarter acquisition report required by Public Law 108–7 and the fiscal year 2008 joint explanatory statement accompanying Public Law 110–161; (2) the Revised Deepwater Implementation Plan; and (3) the future-years capital investment plan for fiscal years 2011–2015 are received by the Committees on Appropriations of the Senate and the House of Representatives....

The paragraph that appropriates funs for the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account appropriated $1,154.28 million for Deepwater acquisition programs,

> Provided, That of the funds made available for the Integrated Deepwater Systems program, $269,000,000 is for aircraft and $730,680,000 is for surface ships: Provided further, That the Secretary of Homeland Security shall submit to the Committees on Appropriations of the Senate and the House of Representatives, in conjunction with the President's fiscal year 2011 budget, a review of the Revised Deepwater Implementation Plan that identifies any changes to the plan for the fiscal year; an annual performance comparison of Integrated Deepwater Systems program assets to pre-Deepwater legacy assets; a status report of such legacy assets; a detailed explanation of how the costs of such legacy assets are being accounted for within the Integrated Deepwater Systems program; and the earned value management system gold card data for each Integrated Deepwater Systems program asset: Provided further, That the Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives, in conjunction with the fiscal year 2011 budget request, a comprehensive review of the Revised Deepwater Implementation Plan, and every 5 years thereafter, that includes a complete projection of the acquisition costs and schedule for the duration of the plan.

In addition appropriating funding for Deepwater acquisition programs for FY2010, the conference report states the following regarding Deepwater acquisition programs:

> Comprehensive Review of the Revised Deepwater Implementation Plan
>
> The conferees note with emphasis the legislative requirement for the Secretary to submit a comprehensive review of the Revised Deepwater Implementation Plan (RDIP). The longstanding requirements for this review are specific: a complete projection of the acquisition costs and schedule for the duration of the RDIP. The conferees expect this review

to update the original RDIP estimated total cost of $24.2 billion and projected completion by fiscal year 2027. Furthermore, the review should clearly and comprehensively display the types and quantities of operational assets covered by the RDIP and the costs and schedule, by fiscal year and by asset, for the replacement or phase-out of legacy assets through refurbishment or acquisition. Since the recapitalization of the Coast Guard's cutters, aircraft, and C4ISR systems is a complex, multiyear, and integrated program, the conferees believe it is imperative to evaluate the complete acquisition program baseline, by asset, through the duration of the RDIP. Given that this RDIP review has been mandated in every annual appropriations Act for DHS since the first RDIP was established in November 2006, the conferees cannot foresee any justification for undue delay from DHS and the Coast Guard in submitting a review that fully complies with the specified requirements, including complete baseline costs. As noted previously in this statement, $50,000,000 is withheld from obligation from Coast Guard Headquarters Directorates until this RDIP review is submitted to the Committees, along with the Capital Investment Plan for fiscal years 2011–2015 and the Quarterly Acquisition Report for the second quarter of fiscal year 2010....

Maritime Patrol Aircraft

The conference agreement provides $138,500,000 for the Maritime Patrol Aircraft acquisition as proposed by the House instead of $175,000,000 as proposed by the Senate. Funds are available for maritime patrol aircraft, mission pallets, simulator, and associated project costs. The Coast Guard is to brief the Committees no later than 30 days after the date of enactment of this Act on the planned distribution of these funds.

National Security Cutter

The conference agreement provides $389,480,000 for the National Security Cutter (NSC) acquisition as proposed by the Senate instead of $281,480,000 as proposed by the House. These funds are to complete production of NSC #4 and for long lead-time materials for NSC #5. The conferees direct the Coast Guard to finalize the integrated logistics plan for the NSC and to brief the Committees on it within 60 days of the date of enactment of this Act.

Offshore Patrol Cutter

The conferees direct the Coast Guard to brief the Committees by March 15, 2010, on the progress of its ongoing preliminary acquisition work on the Offshore Patrol Cutter, including the results of the requirements and alternatives analyses.

Fast Response Cutter

The conferees expect the Coast Guard to continue quarterly briefings on the status of the Fast Response Cutter procurement as outlined in the Senate report, including information on the effectiveness of its efforts to control cost growth in the program.

Polar Icebreaker Sustainment

The conference agreement provides an additional $32,500,000 to complete the reactivation and service life extension of the Coast Guard Cutter POLAR STAR as proposed by the Senate. No additional funding for this activity was proposed by the House. Of this amount, $5,200,000 is provided in the Acquisition, Construction, and Improvements direct personnel costs PPA. Funds shall be applied as specified in the Senate report. The conferees believe returning POLAR STAR to operational status is vital to national interests in the polar regions. According to the Coast Guard the only existing operational heavy icebreaker, the POLAR SEA, has only five years of service life remaining. The absence of requested funding to complete fiscal year 2009 efforts to reactivate POLAR STAR, combined with the

> lack of compliance with standing Congressional direction on the polar icebreaking budget, implies a broader lack of commitment to sustaining polar capabilities and achieving longterm, strategic objectives in the Arctic. The conferees direct the Coast Guard to brief the Committees no later than December 15, 2009, on the program execution plan for reactivation of POLAR STAR and the status of resources required to achieve mission requirements for polar operations.
>
> High Endurance Cutter Sustainment
>
> The conference agreement provides $4,000,000 above the request for pre-acquisition survey and design to determine the requirements for a maintenance effectiveness project for the High Endurance Cutter, instead of the $8,000,000 as proposed by the Senate. No additional funding for this activity was proposed by the House. The conferees direct the Coast Guard to brief the Committees no later than 60 days after the date of enactment of this Act on preliminary plans for this effort, as proposed by the Senate. (Pages 88-89)

The conference report also states:

> Reporting Requirements Withholding
>
> The conferees note that despite legislative mandates the Coast Guard has failed to produce an expenditure plan for the Integrated Deepwater Systems program, a Capital Investment Plan, or Quarterly Acquisition Reports in time to be of use during the fiscal year 2010 appropriations process. In an effort to encourage timely submissions to the Committees of materials necessary for robust and informed oversight, the conference report withholds $50,000,000 from obligation from the Coast Guard's Headquarters Directorates PPA [program, project, or activity] until the Revised Deepwater Implementation Plan, a comprehensive five-year Capital Investment Plan for fiscal years 2011–2015, and the Quarterly Acquisition Report for the second quarter of fiscal year 2010 have been submitted to the Committees. (Page 83)

The conference report also states:

> Government Accountability Office Reviews
>
> The conferees direct the GAO to continue its oversight of the Deepwater Program. In addition to the programs highlighted in the Senate report, GAO should focus on programs nearing critical decision points, such as the Fast Response Cutter, Maritime Patrol Aircraft, and C4ISR, as well as continuing its ongoing work reviewing the acquisition of the NSC and changes made to acquisition processes and policies at both the component and Departmental level that will affect how the Coast Guard functions as systems integrator. The conferees expect GAO to review Coast Guard expenditure plans once they are transmitted to the Committees. (Pages 90-91)

Appendix A. Criticism of Deepwater Management in 2007

Overall Management of Program

Many observers in 2007 believed the problems experienced in the three Deepwater cutter acquisition efforts were the product of broader problems in the Coast Guard's overall management of the Deepwater program. Reports and testimony in 2007 and prior years from the DHS IG and GAO, as well as a February 2007 DAU "quick look study" requested by the Coast Guard[38] expressed serious concerns about the Coast Guard's overall management of the Deepwater program.

Some observers expressed the view that using a private-sector LSI to implement the Deepwater program made a complex program more complex, and set the stage for waste, fraud, and abuse by effectively outsourcing oversight of the program to the private sector and by creating a conflict of interest for the private sector in executing the program. Other observers, including GAO and the DAU, expressed the view that using a private-sector LSI is a basically valid approach, but that the contract the Coast Guard used to implement the approach for the Deepwater program was flawed in various ways, undermining the Coast Guard's ability to assess contractor performance, control costs, ensure accountability, and conduct general oversight of the program.

Observers raised various issues about the Deepwater contract. Among other things, they expressed concern that the contract was an indefinite delivery, indefinite quantity (ID/IQ) contract, which, they said, can be an inappropriate kind of contract for a program like the Deepwater program. Observers also expressed concern that the contract

- transferred too much authority to the private-sector LSI for defining performance specifications, for subsequently modifying them, and for making technical judgements;
- permitted the private-sector LSI to certify that certain performance goals had been met—so-called self-certification, which, critics argue, can equate to no meaningful certification;
- provided the Coast Guard with insufficient authority over the private-sector LSI for resolving technical disputes between the Coast Guard and the private-sector LSI;
- was vaguely worded with regard to certain operational requirements and technical specifications, reducing the Coast Guard's ability to assess performance and ensure that the program would achieve Coast Guard goals;
- permitted the firms making up the private-sector LSI to make little use of competition between suppliers in selecting products to be used in the Deepwater program, to tailor requirements to fit their own products, and consequently to rely too much on their own products, as opposed to products available from other manufacturers;

[38] Defense Acquisition University, *Quick Look Study, United States Coast Guard Deepwater Program*, February 2007.

- permitted the private-sector LSI's performance during the first five-year period to be scored in a way that did not sufficiently take into account recent problems in the cutter acquisition efforts;
- permitted award fees and incentive fees (i.e., bonuses) to be paid to the private-sector LSI on the basis of "attitude and effort" rather than successful outcomes; and
- lacked sufficient penalties and exit clauses.

Observers also expressed concern that the Coast Guard did not have enough in-house staff and in-house expertise in areas such as program management, financial management, and system integration to properly oversee and manage an acquisition effort as large and complex as the Deepwater program, and that the Coast Guard did not make sufficient use of the Navy or other third-party, independent sources of technical expertise, advice, and assessments. They also expressed concern that the Coast Guard, in implementing the Deepwater program, placed a higher priority on meeting a schedule as opposed to ensuring performance.

In response to criticisms of the management and execution of the Deepwater program, Coast Guard and industry officials acknowledged certain problems in the program's management and execution and defended the program's management execution in other respects.[39]

National Security Cutter (NSC)

A DHS IG report released in January 2007 strongly criticized the NSC program, citing design flaws in the ship and the Coast Guard's decision to start construction of NSCs in spite of early internal notifications about these flaws. The design flaws involved, among other things, areas in the hull with insufficient fatigue life—that is, with insufficient strength to withstand the stresses of at-sea operations for a full 30-year service life. The DHS IG report also noted considerable growth in the cost to build the first two NSCs, and other issues.[40]

Observers in 2007 stated that the Coast Guard failed to report problems about the NSC effort to Congress on a timely basis, resisted efforts by the DHS IG to investigate the NSC effort, and appeared to have altered briefing slides on the NSC effort so as to downplay the design flaws to certain audiences. On May 17, 2007, the DHS IG testified that the Coast Guard's cooperation with the DHS IG had substantially improved (though some issues remained), but that Deepwater

[39] For examples of Coast Guard testimony, see Department of Homeland Security, U.S. Coast Guard, Statement of Admiral Thad W. Allen, Commandant, on Deepwater: 120-Days Later, Before the Subcommittee on Coast Guard & Maritime Transportation, Committee on Transportation & Infrastructure, U.S. House of Representatives, June 12, 2007; and Department of Homeland Security, U.S. Coast Guard, Statement of Rear Admiral Gary T. Blore and Captain Steven Baynes on Deepwater: Charting a Course For Safer Waters, Before the Committee on Homeland Security, U.S. House of Representatives, Subcommittees on Management, Investigations, and Oversight and Border, Maritime and Global Counterterrorism, May 17, 2007.

For examples of industry testimony, see Statement for the Record, Mr. James E. Anton, Vice President Deepwater Program, Northrop Grumman Ship Systems (NGSS), Testimony Before: The House Maritime and Global Counter-Terrorism Subcommittee And The House Management, Investigations and Oversight Subcommittee, May 17, 2007; and Testimony of Fred P. Moosally, President, Lockheed Martin Maritime Systems and Sensors, to The House Committee on Homeland Security Subcommittee on Border, Maritime and Global Counterterrorism, May 17, 2007.

[40] Department of Homeland Security, Office of Inspector General, *Acquisition of the National Security Cutter*, OIG - 07-23, January 2007. The report is available online at http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_07-23_Jan07.pdf.

contractors had establishing unacceptable conditions for DHS IG to interview contractor personnel about the program.

110-Foot Patrol Boat Modernization

The Coast Guard originally planned to modernize and lengthen its 49 existing Island-class 110-foot patrol boats so as to improve their capabilities and extend their lives until their planned eventual replacement with FRCs starting in 2018. The work lengthened the boats to 123 feet. The program consequently is referred to as the 110-foot or 123-foot or 110/123 modernization program.

Eight of the boats were modernized at a total cost of about $96 million. The first of the eight modernized boats was delivered in March 2004. Structural problems were soon discovered in them. In June 2005, the Coast Guard stopped the modernization effort at eight boats after determining that they lacked capabilities needed for meeting post-9/11 Coast Guard operational requirements.

In August 2006, a former Lockheed engineer posted on the Internet a video alleging four other problems with the 110-foot patrol boat modernization effort.[41] The engineer had previously presented these problems to the DHS IG, and a February 2007 report from the DHS IG confirmed two of the four problems.[42]

On November 30, 2006, the Coast Guard announced that it was suspending operations of the eight modernized boats (which were assigned to Coast Guard Sector Key West, FL) because of the discovery of additional structural damage to their hulls. The suspension prompted expressions of concern that the action could reduce the Coast Guard's border-enforcement capabilities in the Caribbean. The Coast Guard said it was exploring options for addressing operational gaps resulting from the decision.[43]

On April 17, 2007, the Coast Guard announced that it would permanently decommission the eight converted boats and strip them of equipment and components that might be reused on other Coast Guard platforms.[44] The Coast Guard acknowledged in 2007 that the program was a failure.

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[41] Patricia Kime, "Video Alleges Security Problems With Converted U.S. Coast Guard Cutters," *DefenseNews.com*, August 7, 2006. See also Griff Witte, "On YouTube, Charges Of Security Flaws," *Washington Post*, August 29, 2006. The video is posted on the Internet at http://www.youtube.com/watch?v=qd3VV8Za04g.

[42] Department of Homeland Security, Office of Inspector General, *110'/123' Maritime Patrol Boat Modernization Project*, OIG -07-27, January 2007. The report is available online at http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_07-27_Feb07.pdf.

[43] "Coast Guard Statement on Suspension of Converted Patrol Boat Operations," *InsideDefense.com*, November 30, 2006; Patricia Kime, "U.S. Coast Guard Pulls 123s Out of Service," *DefenseNews.com*, November 30, 2006; Calvin Biesecker, "Coast Guard Suspends 123-Foot Patrol Boat Operations," *DefenseDaily*, December 1, 2006; Robert Block, "Coast Guard Fleet Cuts Could Hurt Border Patrols," *Wall Street Journal*, December 1, 2006; Renae Merle, "Coast Guard Finds Flaws In Converted Patrol Boats," *Washington Post*, December 2, 2006; Renae Merle and Spencer S. Hsu, "Costly Fleet Update Falters," *Washington Post*, December 8, 2006.

[44] Coast Guard Press Release dated April 17, 2007, entitled "Statement by Adm. Thad Allen on the Converted 123-Foot Patrol Boats and Changes to the Deepwater Acquisition Program." See also Geoff Fein, "Coast Guard Nixes 123-Foot Patrol Boat, Assumes Lead of Deepwater Effort," *Defense Daily*, April 18, 2007; Patricia Kime, "Coast Guard To Decommission Troubled 123s," *NavyTimes.com*, April 18, 2007.

Fast Response Cutter (FRC)

As a result of the problems in the 110-foot patrol boat modernization project, the Coast Guard accelerated the FRC design and construction effort by 10 years. Problems, however, were discovered in the FRC design. The Coast Guard suspended work on the design in February 2006, and then divided the FRC effort into two classes—the FRC-Bs, which are to be procured in the near term, using an existing patrol boat design (which the Coast Guard calls a "parent craft" design), and the subsequent FRC-As, which are to be based on a fixed version of the new FRC design.

As mentioned earlier, although the November 2006 Deepwater APB calls for 12 FRCs and 46 FRC-Bs, the Coast Guard's Request for Proposals (RFP) for the FRC-B program includes options for building up to 34 FRC-Bs (which, if exercised, would reduce the number of FRC-As to as few as 24). The Coast Guard has also stated that if the FRC-Bs fully meet the requirements for the FRC, all 58 of the FRCs might be built to the FRC-B design.

Appendix B. Coast Guard Reform Actions in 2007

Actions Announced in April 2007

On April 17, 2007, the Coast Guard announced six changes intended to reform management of the Deepwater program. In announcing the actions, Admiral Thad Allen, the Commandant of the Coast Guard, stated in part:

> Working together with industry, the Coast Guard will make the following six [6] fundamental changes in the management of our Deepwater program:
>
> [1] The Coast Guard will assume the lead role as systems integrator for all Coast Guard Deepwater assets, as well as other major acquisitions as appropriate....
>
> [2] The Coast Guard will take full responsibility for leading the management of all life cycle logistics functions within the Deepwater program under a an improved logistics architecture established with the new mission support organization.
>
> [3] The Coast Guard will expand the role of the American Bureau of Shipping, or other third-parties as appropriate, for Deepwater vessels to increase assurances that Deepwater assets are properly designed and constructed in accordance with established standards.
>
> [4] The Coast Guard will work collaboratively with Integrated Coast Guard Systems to identify and implement an expeditious resolution to all outstanding issues regarding the national security cutters.
>
> [5] The Coast Guard will consider placing contract responsibilities for continued production of an asset class on a case-by-case basis directly with the prime vendor consistent with competition requirements if: (1) deemed to be in the best interest of the government and (2) only after we verify lead asset performance with established mission requirements.
>
> [6] Finally, I will meet no less than quarterly with my counterparts from industry until any and all Deepwater program issues are fully adjudicated and resolved. Our next meeting is to be scheduled within a month.
>
> These improvements in program management and oversight going forward will change the course of Deepwater.
>
> By redefining our roles and responsibilities, redefining our relationships with our industry partners, and redefining how we assess the success of government and industry management and performance, the Deepwater program of tomorrow will be fundamentally better than the Deepwater program of today....
>
> As many of you know, I have directed a number of significant organizational changes [to the Coast Guard], embedded within direction and orders, to better prepare the Coast Guard to meet and sustain mission performance long into the future as we confront a broad range of converging threats and challenges to the safety, security and stewardship of America's vital maritime interests.
>
> What's important to understand here is that these proposed changes in organizational structure, alignment and business processes, intended to make the Coast Guard more

adaptive, responsive and accountable, are not separate and distinct from what we have been doing over the past year to improve Deepwater.

In fact, many of these initiatives can be traced directly to challenges we've faced, in part, in our Deepwater program. Consequently, we will be better organized, better trained, and better equipped to manage large, complex acquisitions like Deepwater in the coming days, weeks, months and years as we complete these service-wide enhancements to our mission support systems, specifically our acquisition, financial and logistics functions. That is the future of the Coast Guard, and that is the future of Deepwater.

To be frank, I am tired of looking in the rearview mirror - conducting what has been the equivalent of an archaeological dig into Deepwater. We already understand all too well what has been ailing us within Deepwater in the past five years:

We've relied too much on contractors to do the work of government as a result of tightening AC&I budgets, a dearth of contracting personnel in the federal government, and a loss of focus on critical governmental roles and responsibilities in the management and oversight of the program.

We struggle with balancing the benefits of innovation and technology offered through the private sector against the government's fundamental reliance on robust competition.

Both industry and government have failed to fully understand each other's needs and requirements, all too often resulting in both organizations operating at counter-odds to one another that have benefited neither industry nor government.

And both industry and government have failed to accurately predict and control costs.

While we can—and are—certainly learning from the past, we ought to be about the business of looking forward—with binoculars even—as we seek to see what is out over the horizon so we can better prepare to anticipate challenges and develop solutions with full transparency and accountability. That is the business of government. And it's the same principle that needs to govern business as well.

And it's precisely what I intend to do: with the changes in management and oversight I outlined for you here today, with the changes we are making in the terms and conditions of the Deepwater contract, and with the changes we will make in our acquisition and logistics support systems throughout the Coast Guard. If we do, I have no doubt in my mind that we will exceed all expectations for Deepwater....

The Deepwater program of tomorrow will be fundamentally better than the Deepwater program of today.

The Coast Guard has a long history of demonstrating exceptional stewardship and care of the ships, aircraft and resources provided it by the public, routinely extending the life of our assets far beyond original design specifications to meet the vital maritime safety, security and stewardship needs of the nation....

Knowing that to be the case, I am personally committed to ensuring that our newest ships, aircraft and systems acquired through the Coast Guard's Integrated Deepwater System are capable of meeting our mission requirements from the moment they enter service until they are taken out of service many, many years into the future....

> As I've said many times in the past, the safety and security of all Americans depends on a ready and capable Coast Guard, and the Coast Guard depends on our Deepwater program to keep us ready long into the future.
>
> The changes to Deepwater management and oversight I outlined here for you today reflect a significant change in the course of Deepwater. I will vigorously implement these and other changes that may be necessary to ensure that our Coast Guard men and women have the most capable fleet of ships, aircraft and systems they need to do the job I ask them to do each and every day on behalf of the American people.[45]

Other Actions Announced in 2007

The Coast Guard in 2007 also did the following:

- announced a reorganization of certain Coast Guard commands—including the creation of a unified Coast Guard acquisition office—that is intended in part to strengthen the Coast Guard's ability to manage acquisition projects, including the Deepwater program;
- stated that would alter the terms of the Deepwater contract for the 43-month award term that commenced in June 2007 so as to address concerns raised about the current Deepwater contract;
- announced that it intended to procure the 12 FRC-B cutters directly from the manufacturer, rather than through ICGS;
- stated that it was hiring additional people with acquisition experience, so as to strengthen its in-house capability for managing the Deepwater program and other Coast Guard acquisition efforts;
- stated that it concurred with many of the recommendations made in the DHS IG reports, and was moving to implement them;
- stated that it was weighing the recommendations of the DAU quick look study; and
- stated that it had also implemented many recommendations regarding Deepwater program management that have been made by GAO.

[45] Coast Guard Press Release dated April 17, 2007, entitled "Statement by Adm. Thad Allen on the Converted 123-Foot Patrol Boats and Changes to the Deepwater Acquisition Program."

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