Order Code RL33753

CRS Report for Congress

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

Updated June 5, 2008

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Prepared for Members and
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Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
05 JUN 2008		**00-00-2008 to 00-00-2008**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Congressional Research Service,The Library of Congress,101 Independence Avenue, SE,Washington,DC,20540-7500**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**42**	

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

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 had pursued these programs as a single, integrated acquisition program that was known as the Integrated Deepwater System (IDS) program or the 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 Coast Guard has requested a total of $990.4 million in acquisition funding for FY2009 for Deepwater programs.

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 in reports and testimony from the Department of Homeland Security Inspector General (DHS IG), the Government Accountability Office (GAO), the Defense Acquisition University (DAU), and other observers. House and Senate committees held several oversight hearings on the program, at which several Members of Congress strongly criticized the management and execution of the program, particularly regarding problems in programs to acquire new and modernized cutters and patrol boats. Bills were introduced to restructure or reform the Deepwater 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 acquisition in general), resulting, for example, in the shift from a single, integrated Deepwater acquisition program to a collection of individual Deepwater acquisition programs.

Bills and laws in the 110th Congress relating to Deepwater acquisition include the following:

- **H.R. 2830/S. 1892**, the Coast Guard Authorization Act of 2008;
- **H.R. 2638/S. 1644**, the FY2008 Department of Homeland Security appropriations act, which was incorporated into the FY2008 Consolidated Appropriations Act (**H.R. 2764/P.L. 110-161** of December 26, 2007);
- **H.R. 2722/S. 924**, the Integrated Deepwater Program Reform Act;
- **S. 889**, the Deepwater Accountability Act; and
- **H.R. 2206/P.L. 110-28**, the FY2007 emergency supplemental appropriations act.

Potential oversight issues for Congress in 2008 include but are not necessarily limited to the Coast Guard's overall management of Deepwater acquisition, the status of certain Deepwater acquisition programs, and the so-called revolving door issue. This report will be updated as events warrant.

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Introduction

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The Coast Guard has requested a total of $990.4 million in acquisition funding for FY2009 for Deepwater programs, including $231.3 million for Deepwater air assets, $540.7 for Deepwater surface assets, and $218.4 million for other Deepwater programs.

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 in reports and testimony from the Department of Homeland Security Inspector General (DHS IG), the Government Accountability Office (GAO), the Defense Acquisition University (DAU), and other observers. House and Senate committees held several oversight hearings on the program, at which several Members of Congress strongly criticized the management and execution of the program, particularly regarding problems in programs to acquire new and modernized cutters and patrol boats. Bills were introduced to restructure or reform the Deepwater 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 acquisition in general), resulting, for example, in the shift from a single, integrated Deepwater acquisition program to a collection of individual Deepwater acquisition programs.

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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 systems[1] 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.

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

- **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 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.

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

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[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.

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.

The Coast Guard has stated that the 43-month award term with ICGS is being used to complete Deepwater acquisition efforts already underway. Task orders issued under the award term, the Coast guard has stated, are for performance periods of not more than 18 months, with the aim of closing out these efforts. By July 1, 2007, the Coast Guard has stated, only three Deepwater contract line item numbers (CLINs) remained with ICGS — those for the National Security Cutter (NSC), the Maritime Patrol Aircraft (MPA), and C4ISR integration.

The Coast Guard states that as of late-April 2008, its in-house acquisition and program-management staff included a total of 946 people. The Coast Guard's goal is to increase that figure to about 1,000. The Coast Guard states that as of late-April 2008, there were shortfalls within the Coast Guard's acquisition and program-management staff in the areas of contract officers and certain other specialities. The Coast Guard stated that it is addressing these shortfalls through new hiring and training, and that the effort to overcome these shortfalls might be complete within about 24 months, depending on budgets and the hiring environment.

The Coast Guard states that it will continue to use the services of independent, third-party sources of support, including the Navy. The Coast Guard states that "government program management will be performed by uniformed or civilian Coast Guard members, other government agencies[,] and support contractors (e.g., the American Bureau of Shipping [ABS]). The support contractors working directly on

government program management tasks as directed by the Cost Guard will be selected in accordance with the Federal Acquisition Regulations."[3]

Deepwater Assets Planned For Acquisition[4]

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

Table 1. Deepwater Assets Planned For Acquisition

(with acquisition costs in millions of then-year dollars)

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

[3] Source for information in this paragraph and the preceding paragraph: Coast Guard briefing to CRS on the Deepwater program, April 28, 2008. For additional information on the Coast Guard's plan for increasing its in-house acquisition and program-management capabilities, see Department of Homeland Security, Untied States Coast Guard, *Acquisition Human Capital Strategic Plan*, Washington, 2008.

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

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-Range Prosecutors (SRPs)	110
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.

2008 Alternatives Analysis (AA). Between September 2007 and February 2008, the Coast Guard conducted a reevaluation of the mix of assets to be procured under the Deepwater program in a study called an Alternatives Analysis (AA). The study examined alternative platforms for the NSC, OPC, FRC, MPA, and VUAV. The study suggested that the Coast Guard consider a number of alternatives regarding the Deepwater asset mix and concluded that, regardless of the asset mix, the Coast Guard has infrastructure funding and scheduling shortfalls that need to be addressed.[5]

[5] Michael Bruno, "Alternatives Analysis Spurs Coast Guard UAS Search," *Aerospace Daily & Defense Report*, February 12, 2008; Philip Ewing, "Report: CG May Need Fewer Big Cutters," *NavyTimes.com*, March 5, 2008; Bettina Chavanne and Michael Bruno, "Official (continued...)

The Coast Guard states that the study "generally confirms and reinforces the Coast Guard's approach to Deepwater asset procurement plans," including the continuation of the NSC and MPA as planned, and the need for the OPC and FRC.[6] The study has not resulted in changes in the planned mix of air and surface assets shown in **Table 1**.

Examples Of Deliveries Of Deepwater Assets

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

- The first missionized HC-130J was accepted by the Coast Guard on February 29, 2008, and a total of three were accepted as of May 12, 2008. All six aircraft are scheduled to be completed by the Fall of 2008.

- The first HC-144A was accepted by the Coast Guard on March 10, 2008, and a total of four were accepted as of May 8, 2008.

- The U.S. Coast Guard began converting its 42 legacy HH-60J aircraft to MH-60Ts in January 2007. The first HH-60J conversion to the MH-60T prototype was completed in June 2007.

- The first re-engined HH-65C entered service in October 2004, and all 102 have been re-engined, upgraded, and converted to the HH-65C configuration. This work is the first of three phases of work to be performed on the helicopters. When all three phases are complete, the helicopters will be designated as the MCH, denoting their multi-mission capabilities.

- The Coast Guard conducted preliminary acceptance (i.e., delivery) of the first NSC on May 8, 2008.

- As of late-April 2008, the LRI had completed factory acceptance testing,[7] and the fist eight SRPs has been delivered.

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[5] (...continued)
Study Notes Coast Guard Acquisition Shortfalls," *Aerospace Daily & Defense Report*, March 7, 2008; Geoff Fein, "Coast Guard Agrees With AA On Almost All Recommendations," *Defense Daily*, March 10, 2008; Zachary M. Peterson, "Re-Analysis Validates Coast Guard's Way Ahead With Deepwater," *Inside the Navy*, March 10, 2008; Bettina H. Chavanne, "USCG Will Not Rebaseline Deepwater Despite Alternatives Analysis," *Aerospace Daily & Defense Report*, March 12, 2008: 1-2.

[6] Source: Coast Guard briefing to CRS on the Deepwater program, April 28, 2008.

[7] For an article discussing the LRI, see Rebekah Gordon, "NSC's Long Range Interceptor Tough To Operate At High Speeds," *Inside the Navy*, May 26, 2008.

Deepwater Acquisition Funding

Prior-Year Funding. **Table 2** below shows prior-year acquisition funding for Deepwater acquisition programs. As can be seen in the table, the programs have received a net total of about $5.1 billion through FY2008, including a net total of $650.8 million in FY2008.

Table 2. Prior-year Deepwater Acquisition Funding

(in millions of dollars, rounded to nearest tenth)

	Prior[a]	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09
Request	n/a	320.2	500.0	500.0	678	966.0	934.4	836.9	990.4
Appropriation	n/a	320.2	478.0	668.2	724.0	933.1	1,065.9	783.3	
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**	**1,036.4**	**1,144.6**	**650.8**	
Cumulative total[b]	**117.0**	**437.2**	**912.1**	**1,522.7**	**2,257.5**	**3,293.9**	**4,438.5**	**5089.3**	

Source: Prepared by CRS using Coast Guard data provided on January 29, 2007 (FY2007 and prior years), and FY2008 Consolidated Appropriations Act (FY2008). Totals may not add due to rounding.

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.

Requested And Planned Funding for FY2009-FY2013. **Table 3** shows acquisition funding requested for Deepwater programs in FY2009, and planned for Deepwater programs for FY2010-FY2013.

As shown in the table, the Coast Guard has requested a total of $990.4 million in acquisition funding for FY2009 for Deepwater programs, including $231.3 million for Deepwater air assets, $540.7 for Deepwater surface assets, and $218.4 million for other Deepwater programs.

The funding requested in FY2009 for air assets would fund the delivery of two HC-144As; engine sustainment and upgrades to avionics, wiring, and sensors for eight HH-60 helicopters; modernization work on 22 HH-65 helicopters; and project analysis for the VUAV.

The funding requested in FY2009 for surface assets would fund the completion of the fourth NSC; the production of three FRCs; the operational enhancement of five Medium Endurance Cutters; the operational enhancement of three 110-foot patrol boats; analysis of requirements for the OPC; and development and production of a cutter small boat.

Table 3. FY2008-FY2013 Deepwater Acquisition Funding

(in millions of dollars, rounded to nearest tenth)

	FY08 enacted	FY09 requested	FY10 planned	FY11 planned	FY12 planned	FY13 planned	
Air assets							
Maritime Patrol Aircraft	170.0	86.6	175.2	119.4	61.1	47.0	
HH-60 Conversion	57.3	52.7	52.4	21.4	12.8	31.9	
HH-65 Conv./Sust.[a]	50.8	64.5	72.8	73.1	69.9	30.0	
HC-130H Conv./Sust.[a]	18.9	24.5	55.3	89.2	93.3	96.5	
HC-130J Fleet Intro.[a]	5.8	0	0	0	0	0	
Armed Helo Equip.[a]	24.6	0	0	0	0	0	
UAS[a]	0	3.0	0	0	0	0	
Subtotal aircraft	*327.4*	*231.3*	*355.7*	*303.1*	*237.1*	*205.4*	
Surface assets							
NSC	165.7	353.7	142.9	501.3	506.4	511.3	
OPC	0	3.0	0	0	25.0	70.0	
FRC-B	0	115.3	243.0	73.0	0	0	
Deepwater small boats	2.7	2.4	2.9	3.0	3.1	3.6	
WMEC sustainment[a]	34.5	35.5	36.6	37.7	41.8	36.9	
Patrol boats sustainment	40.5	30.8	17.5	7.5	0.5	0	
FRC-A	0	0	0	5.0	50.0	5.0	
Subtotal surface ships	*243.4*	*540.7*	*442.9*	*627.5*	*626.8*	*626.8*	
Other							
Govt. program mgt.	50.5	58.0	50.0	53.0	52.0	53.0	
Systems eng. and int.[a]	35.1	33.1	35.0	36.0	37.0	37.7	
C4ISR	89.6	88.1	45.0	60.6	45.0	40.0	
Deepwater logistics	36.5	37.7	38.6	38.6	37.6	36.6	
Tech. Obsol. Prev.[a]	0.7	1.5	1.9	1.8	1.8	4.6	
Subtotal other	*212.5*	*218.4*	*170.5*	*190.0*	*173.4*	*171.9*	
TOTAL FY2008	**783.3**	**990.4**	**969.1**	**1120.6**	**1037.3**	**1004.0**	
Rescissions of prior-year funding							
OPC	98.6	0	0	0	0	0	
VUAV	33.8	0	0	0	0	0	
Subtotal rescissions	*132.4*	*0*	*0*	*0*	*0*	*0*	
NET TOTAL	**650.8**	**990.4**	**969.1**	**1120.6**	**1037.3**	**1004.0**	

Source: U.S. Coast Guard Posture Statement With [FY] 2009 Budget in Brief, p. 49 (Table 4). Totals may not add due to rounding.

a. Conv./Sust. is Conversion/Sustainment Projects; Fleet Intro. is Fleet Introduction; Armed Helo. Equip. is Armed Helicopter Equipment (Airborne Use of Force); UAS is Unmanned Aircraft System; WMEC is medium-endurance cutter; eng. and int. is engineering and integration; Tech. Obsol. Prev. is Technology Obsolescence Prevention.

Criticism Of Deepwater Management In 2007

The management and execution of the then-integrated Deepwater program was strongly criticized in 2007 by the DHS IG,[8] GAO,[9] the DAU (whose analysis was requested by the Coast Guard),[10] 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 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.

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

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[8] 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 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).

[9] 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.

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

Coast Guard[11] 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;

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[11] 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.[12]

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

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[12] 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 Guad & 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.

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.[13]

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 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.[14] 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.[15]

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

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[13] 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].

[14] 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].

[15] 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].

said it was exploring options for addressing operational gaps resulting from the decision.[16]

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.[17] The Coast Guard acknowledged in 2007 that the program was a failure.

Fast Response Cutter (NSC). 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.

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 acquisition in general).

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:

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[16] "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.

[17] 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.

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.[18]

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.

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[18] 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."

Justice Department Investigation

On April 18, 2007, it was reported that the Justice Department is 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.[19]

Oversight Issues for Congress

Potential oversight issues for Congress in 2008 include but are not necessarily limited to the Coast Guard's overall management of Deepwater acquisition, the status of certain Deepwater acquisition programs, and the so-called revolving door issue.

Overall Management

Coast Guard Perspective. In addition to implementing the 2007 Deepwater reform actions outlined in the "Background" section of this report, the Coast Guard states that as of late-April 2008, the service had implemented 54 of 102 actions recommended in its *Blueprint for Acquisition Reform*, the document that sets forth the Coast Guard's plan for reforming its acquisition activities.[20] The remaining actions currently in the plan, the Coast Guard states, are to be completed by July 2009. The Coast Guard states that the document is to be updated in July 2008 to include additional goals to be completed by July 2010 and perhaps also July 2009. The Coast Guard also states that it has implemented most of the recommendations made by GAO for reforming management of Deepwater acquisition, and is working on implementing the remainder. (See discussion below on GAO perspective.)

The Coast Guard notes that although problems occurred with the cutter acquisition programs and the VUAV program, many other elements of the Deepwater program are being successfully implemented. The Coast Guard states that funding spent on the 110/123 patrol boat conversion program ($96 million), the initial design effort for the FRC ($33 million), and the initial portion of the VUAV effort (roughly $115 million) together constitute only a small fraction of the total funding spent on

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[19] 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.

[20] United States Coast Guard, Acquisition Directorate, *Blueprint For Acquisition Reform*. Washington, 2007. 61 pp. (This citation is for Version 2.0 of the document, which is dated July 13, 2007 and is available at [http://www.uscg.mil/acquisition/newsroom/pdf/blueprintforacquisitionreform.pdf].)

various Deepwater acquisition programs, and that funding spent elsewhere in the program has achieved numerous results in terms of newly delivered capabilities.[21]

GAO Perspective. Regarding overall management of Deepwater acquisition, GAO reported in March 2008 that:

> The Coast Guard has changed how decisions are made about purchasing Deepwater assets. It is moving from a "system-of-systems" acquisition model — with the contractor, ICGS, as the system integrator — to a more traditional acquisition strategy in which the Coast Guard will take a more direct role and manage the acquisition of each asset separately....
>
> We have closed two of the five open recommendations from our previous report, pertaining to the Coast Guard's use of models and metrics to measure the contractor's progress toward improving operational effectiveness and establishing criteria for when to adjust the total ownership cost baseline. The Coast Guard has taken actions on the three recommendations that remain open, such as designating Coast Guard officials as the lead on integrated product teams, developing a draft maintenance and logistics plan for the Deepwater assets, and potentially eliminating the award term provision from the ICGS contract. However, at this time, the actions are not sufficient to allow us to close them.[22]

The same GAO report also stated:

> The Coast Guard is moving away from the ICGS contract and the system-of-systems model, with the contractor as system integrator, to a more traditional acquisition strategy, where the Coast Guard will manage the acquisition of each asset separately. In a series of reports since 2001, we have noted the risks inherent in the systems integrator approach to the Deepwater program and have made a number of recommendations intended to improve the Coast Guard's management and oversight. We specifically focused on the need to improve program management, contractor accountability, and cost control. We, as well as the DHS Inspector General and others, have also noted problems in specific acquisition efforts, notably the National Security Cutter (NSC) and the 110-Foot Patrol Boat Modernization, which was permanently halted due to operational and safety concerns.
>
> The Coast Guard has recognized that it needs to increase government oversight and has begun to transfer system integration and program management responsibilities back to the Coast Guard. It has begun taking formal steps to reclaim authority over decision making and to more closely monitor program outcomes.
>
> The Coast Guard has also
>
> • begun to competitively purchase one asset (the Fast Response Cutter-B) and plans to competitively purchase other assets outside of the ICGS contract;

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[21] Source for information in this paragraph and the preceding paragraph: Coast Guard briefing to CRS on the Deepwater program, April 28, 2008.

[22] Government Accountability Office, *Status of Selected Aspects of the Coast Guard's Deepwater Program*, GAO-08-270R, March 11, 2008, pp. 2-3.

• expanded the role of third parties, including the U.S. Navy, to perform independent cost assessments and program technical analyses; and
• reorganized and consolidated the acquisition function to strengthen its ability to manage projects.

Additionally, because the IDIQ contract minimum was met during the 5-year base term, the government is under no further obligation to use the contract. Coast Guard officials said that they are currently evaluating whether to continue to use the ICGS contract for efforts that are already under way, such as the NSC, versus contracting directly with the subcontractors. Further, they may continue to use the ICGS contract for certain efforts, such as logistics.[23]

Regarding a GAO recommendation to take steps to make integrated product teams (IPTs) effective, the same GAO report states:

Current Status: Partially Implemented

The Coast Guard is in the process of restructuring the IPTs, which remain a key program management tool. Coast Guard program managers, rather than ICGS representatives, now chair the IPTs. The IPTs' current role is to discuss options for problem solving related to cost, schedule, and performance objectives, but the program manager is ultimately responsible for making decisions. In addition to evaluating and rechartering some existing IPTs, the Coast Guard has organized two new ones and is in the process of establishing several others.

Since the Coast Guard will now chair IPTs, the chartering of sub-IPTs to clarify roles and responsibilities is no longer an issue. Coast Guard officials plan to use working groups established under the authority of the IPTs to address specific issues. Working groups are more informal and can come together and disband on an as-needed basis.

Finally, the electronic information system, built and managed by ICGS, is still used as a tool used to share information among geographically dispersed IPT members — specifically, ICGS and the Coast Guard. However, with the decreasing reliance on ICGS as the system integrator, this particular contractor-led electronic information-sharing system may become less integral to effective management of the Deepwater program.

Due to the ongoing chartering, restructuring, and re-evaluation of the roles and responsibilities of the IPTs within the new construct of the Deepwater program, this recommendation remains open as partially implemented.[24]

Regarding a GAO recommendation to provide information on maintenance and logistics responsibilities, the same GAO report stated:

Current Status: Partially Implemented

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[23] Ibid, Objective #1 (page 2).

[24] Ibid, Objective #4 (page 8).

> In June 2007, we reported that the Coast Guard announced it was assuming the role of the default provider of maintenance and logistics, supplemented by contractors as necessary. The Coast Guard is still formalizing its assumption of maintenance and logistics responsibilities. The Coast Guard technical authority is developing a commandant instruction that outlines policies, processes, roles, and responsibilities for maintenance and logistics support for Deepwater assets. The Coast Guard plans for Deepwater assets to follow the same maintenance program — already familiar to Coast Guard maintenance personnel — as its other assets. However, the Coast Guard expects that some areas, such as command, control, communications, and computer electronics, will require contractor support until Coast Guard personnel can be trained or new personnel can be hired to fill these roles.
>
> Because the Coast Guard has not yet issued the final commandant instruction that assigns maintenance and logistics responsibilities to Coast Guard personnel instead of ICGS, we are leaving this recommendation open as partially implemented. Once the instruction that addresses our recommendation is issued, we plan to close this recommendation as implemented.[25]

Regarding a GAO recommendation to hold the system integrator accountable for competition among subcontractors in make-or-buy decisions for the Deepwater program, the same GAO report stated:

> *Current Status: Partially Implemented*
>
> The Coast Guard has taken steps to increase its insight into make-or-buy decisions for Deepwater assets under the ICGS contract. In 2005, the Coast Guard asked ICGS to notify the government of make-or-buy decisions of $10 million or more. However, in December 2006, the Coast Guard reported that contractor data were inadequate to determine the level of competition achieved. Subsequently, the June 2007 award term modification incorporated a formal requirement for reporting make-or-buy decisions. ICGS must submit a make-or-buy plan that outlines rationale and justification for each DTO proposal that contains work items or work efforts priced at more than $5 million and/or that would typically require company management review because of complexity, cost, need for large quantities, or requirement for additional production facilities. The rationale should consider overall benefit to the government, including:
>
> (1) long-term and/or near-term cost benefit;
>
> (2) adequacy of considerations made in the make-or-buy determination;
>
> (3) impacts on product performance;
>
> (4) present and future supportability, maintenance and/or upgrade potential; and
>
> (5) proprietary data or other restrictions that could limit pursuit of future cost-effective alternatives.
>
> The Coast Guard is putting less emphasis on the subcontractor competition issue due to the move away from using the ICGS contract and more toward full and open competition. In fact, Coast Guard officials told us that because of potential legislation that would prohibit them from using ICGS as the system

[25] Ibid, Objective #3 (page 9).

> integrator, they are considering eliminating award term provisions from the contract.
>
> In addition, the Coast Guard no longer uses award fees under the ICGS contract. However, it has incorporated an incentive fee for the NSC.
>
> We are leaving this recommendation open as partially implemented pending Coast Guard documentation regarding the award term provision.[26]

GAO also commented at length on the Coast Guard's management of the Deepwater program in March 5, 2008, testimony before the Homeland Security subcommittee of the House Appropriations Committee,[27] and March 6, 2008 testimony before the Oceans, Atmosphere, Fisheries, and Coast Guard subcommittee of the Senate Commerce, Science, and Transportation Committee.[28]

National Security Cutter (NSC)

In General. On August 8, 2007, the Coast Guard announced that it had reached agreement with ICGS to settle design and contractual issues regarding the first three National Security Cutters.[29] An August 13, 2007, press report provided additional information on the settlement.[30] Changes to the NSC's design intended to improve the ship's estimated fatigue life will be backfitted onto the first two NSCs and incorporated into the original construction of the third and subsequent NSCs. The Coast Guard states:

> Not atypically for a first-in-class ship, during the Coast Guard's review of the NSC's design from 2002 to 2004, concerns were raised about certain aspects of the ship's structure that could prevent it from achieving its required 30-year service life. Specifically, Coast Guard and independent technical experts questioned whether some of the cutter's structural components would experience fatigue damage prior to the service-life objective, a critical consideration given the extended, high-tempo operations expected of the NSC. After thorough review, the Coast Guard determined that it is in the U.S. Government's interest

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[26] Ibid, Objective #4 (page 12).

[27] Government Accountability Office, *Testimony Before the Subcommittee on Homeland Security, Committee on Appropriations, House of Representatives, [on] Coast Guard[:] Deepwater Program Management Initiatives and Key Homeland Security Missions, Statement of John P. Hutton, Director Acquisition and Sourcing Management and Stephen L. Caldwell, Director Homeland Security and Justice*, GAO-08-531T.

[28] Government Accountability office, Testimony Before the Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard, Committee on Commerce, Science, and Transportation, U.S. Senate, [on] Coast Guard[:] Observations on the Fiscal Year 2009 Budget, Recent Performance, and Related Challenges Statement of Stephen L. Caldwell, Director Homeland Security and Justice Issues, GAO-08-494T.

[29] Coast Guard Press Release, August 8, 2007, entitled "Coast Guard Awards Contract For Third National Security Cutter," accessed on August 23, 2007, at [https://www.piersystem.com/go/doc/786/167626/]

[30] Christopher P. Cavas, "USCG, Contractors Agree on New Cutters," *Defense News*, August 13, 2007.

> to increase the fatigue tolerance of the NSC to ensure that the ship's basic structures will meet its projected 30-year service life. Engineering changes to address the desired structural enhancements were developed in collaboration with the U.S. Navy and other naval engineering experts for approval by the Deepwater Program's technical authority, the Engineering and Logistics Directorate at U.S. Coast Guard Headquarters in Washington, D.C.
>
> In the end, Coast Guard officials say, the NSC will be designed to achieve a 30-year fatigue life and built to deliver 21st Century capabilities to the Coast Guard in a way that will enhance the safety of its crew and allow the Coast Guard to execute its central missions more effectively, efficiently, and safely.[31]

The Coast Guard conducted preliminary acceptance (i.e., delivery) of the first NSC on May 8, 2008. The Coast Guard's press release on the event stated in part:

> Today's delivery is a major milestone in BERTHOLF's transition to full operational status in the Coast Guard's fleet and represents preliminary acceptance of the cutter, as documented in the Material Inspection and Receiving Report (DD250). The DD250 formally documents inspection, delivery by the ship builder, and receipt by the government This marks first major multi-mission cutter to be built and delivered to the Coast Guard in more than 20 years.
>
> Following recommendations from the cutter's prospective commanding officer, Coast Guard technical authorities, the operational community, and acquisition professionals, the Coast Guard Agency Acquisition Executive, Vice Adm. Vivien Crea, gave the go-ahead for preliminary acceptance of BERTHOLF....
>
> Today's preliminary acceptance allows the Coast Guard's crew to move aboard BERTHOLF and place the cutter "In Commission Special" status. This status indicates that the vessel is entering a post-delivery period of approximately 22-24 months during which it will undergo crew training, operational evaluation and certification, and Post Delivery and Post Shakedown availabilities to ensure it meets all performance and operational requirements....
>
> During the recently completed Acceptance Trials of BERTHOLF, the U.S. Navy's Board of Inspection and Survey (INSURV) designated eight "starred" trial cards as a subset of the approximately 2,800 cards it identified. The government uses trial cards to document technical and performance discrepancies that require correction before the ship becomes operational. The INSURV Board recommended that the Coast Guard accept the BERTHOLF after appropriately addressing the eight starred cards. The Coast Guard has overseen the successful resolution of two starred cards. The remaining starred cards will continue to be addressed by the Coast Guard, with some pending final at-sea testing. Those cards, along with all other outstanding trial cards, are listed as exceptions on the DD250 and will be closely tracked until they are completely resolved.
>
> In addition to addressing those trial cards, the Coast Guard continues its information assurance work to achieve certification of all information technology systems onboard BERTHOLF. Those efforts include TEMPEST (Information

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[31] Source: Coast Guard discussion of NSC program on the Internet at [http://www.uscg.mil/acquisition/nsc/projectdescription.asp].

> Assurance) testing and software scans by the U.S. Navy's Space and Naval Warfare Systems Command (SPAWAR). Work will continue to ensure that all systems receive proper certification prior to the cutter's first operational deployment. Anticipating that some installed classified communications systems may not be certified and accredited prior to a mid-June "sail-away" date, temporary "stand-alone" systems, as necessary, will be made available to the ship for the voyage to homeport. No classified communications will occur over any system that has not met stringent Information Assurance standards (including TEMPEST certification).
>
> In approximately one year, and following successful completion of these efforts, resolution of all trial cards and contract liens, and completion of the warranty period, the Coast Guard will execute final acceptance of the cutter.[32]

Electronics/C4ISR Systems. In February and March 2008, press reports stated that there were problems with the electronic systems on the first NSC, and that the ship's entry into service might consequently delayed.[33] Coast Guard officials questioned the accuracy of facts reported in some of the news accounts, and expressed confidence that the ship would be delivered without further delay.[34]

The first NSC's C4ISR systems, including its information assurance [IA] capability — the ability of its various electronic systems to protect classified data – were again discussed in press reports in early-May 2008. One such report stated:

> The InSurv report provides one of the most detailed looks yet at the state of the $641 million Bertholf, the first in a class of eight ships that are to take over for the Coast Guard's current fleet of a dozen 40-year-old Hamilton-class high-endurance cutters.
>
> "In general, builder fit, finish and cleanliness on the main deck and above were very good and in many areas met or exceeded new construction trial expectations," the report said, although the ship was not as squared-away below

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[32] Coast Guard press release dated May 8, 2008, entitled "First National Security Cutter Delivered to Coast Guard," available online at [http://www.piersystem.com/go/doc/786/201676/]. See also the additional Coast Guard information on the ship's preliminary acceptance posted online at [http://www.uscg.mil/acquisition/newsroom/pdf/30_May_AT_whitepaper_starred_cards_update_hck.pdf], [http://www.uscg.mil/acquisition/newsroom/pdf/nscacceptancecongressionalbrief.pdf], and [http://www.piersystem.com/go/doc/786/199176/]. See also: Rebekah Gordon, "Coast Guard Accepts Delivery of First National Security Cutter," Inside the Navy, May 12, 2008.

[33] Philip Ewing, "C4ISR Problems Could Delay Cutter Construction," *NavyTimes.com*, February 27, 2008; Geoff Fein, "Coast Guard Working To Assure Information Won't Leak From Bertholf," *Defense Daily*, March 6, 2008; David Axe, "Coast Guard Delays Cutter Over Radios," *Washington Times*, March 11, 2008; Dan Caterinicchia, "Coast Guard Delays First Ships for New Fleet," *Washington Post*, March 12, 2008: D3.

[34] Philip Ewing, "CG: Contrary to Report, No Delay for Bertholf," *NavyTimes.com*, March 11, 2008; Bettina H. Chavanne, "USCG Confident About NSC; GAO Less So," *Aerospace Daily & Defense Report*, March 14, 2008: 3; Zachary M. Peterson, "Coast Guard Admirals Confident NSC Will Be Delivered By End of May," *Inside the Navy*, March 17, 2008; John M. Doyle, "Coast Guard To Deploy New Cutter in 2010," *Aviation Week*, April 11, 2008.

decks. And the InSurv said that 1,360 trial cards were carried over from previous machinery trials, "a testament to the superb quality assurance oversight provided during ship construction and testing by the USCG project manager's representative office and the Navy supervisor of shipbuilding."

But one key detail went unresolved — an assessment of the Bertholf's command, control, communications, computers, intelligence, surveillance and reconnaissance suite, commonly known as C4ISR. Much of the information systems gear was not yet installed when InSurv came onboard, according to the report, nor did Navy inspectors conduct full tests on the ship's radios, although overall the communications section of the InSurv gave the highest grade, "satisfactory."

Coast Guard systems officials said in a March blog post that "issues" with the Bertholf's C4ISR information security posed "some risk" of a delay in the ship's delivery schedule, although Coast Guard and industry officials have continued to insist that the ship is adhering to its revised timetable.[35]

Another early-May 2008 press report stated that:

The U.S. Coast Guard may still face issues with communications systems aboard its new National Security Cutter (NSC) if it tinkers with precertified command, control and communications systems after it accepts the ship.

An Inspection and Survery (Insurv) report issued recently gave a 98 percent rating to the communications system aboard the new NSC, the Bertholf. The U.S. Navy, which runs the Insurv, determined the Lockheed Martin-built communications suite was ready for acceptance.

However, additional communications and control equipment to be installed after the ship is accepted has the potential to conflict with the work Lockheed Martin has already performed, the company says. "We want to help the Coast Guard avoid any potential impacts to system performance or our ability to provide support under warranty as they integrate additional systems following acceptance," Lockheed Martin Coast Guard Systems technical director Jack Ryan told Aerospace DAILY in a May 6 e-mail.

Coast Guard spokesperson Laura Williams said, "There's no difference after we accept the ship. We do have a warranty period." Whatever work is not complete up until the Cost Guard accepts the ship will be listed on a certification documents known as DD 250, which is anticipated later this week, according to Williams.

The Coast Guard will continue to "ensure all work will receive the proper certification by deployment," Williams added. "To my knowledge, [Coast Guard] work will not void the warranties."

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[35] Philip Ewing, "National Security Cutter 'Capable,' InSurv Finds," NavyTimes.com, May 1, 2008. See also Michael DeKort, "National Security Cutter Blunder?", May 2, 2008, available online at [http://equalcivilrights.blogspot.com/2008/05/national-security-cutter-blunder.html]

> But when the Coast Guard begins integrating additional communications components on the Bertholf, the concern is whether there will be an impact on existing equipment, and whether work performed by the Coast Guard will affect Lockheed Martin's ability to provide maintenance and service. Rayan said Lockheed will transition to a "support role" after the ship is accepted. "We are happy to provide support if asked, but we are not currently involved with any additional system installations planned after acceptance of the ship."[36]

In late-May 2008, it was reported that:

> The Coast Guard's new national security cutter, the Bertholf, is steadily whittling down its number of outstanding technical problems now that its crew has moved aboard and the ship is taking regular trips to sea, senior Coast Guard officials said Tuesday.
>
> Rear Adm. Gary Blore, the service's head of acquisitions, said in a conference call with reporters that the presence of the crew onboard had enabled Coast Guardsman and shipyard engineers to resolve five of the eight systems "starred" in an April report by the Navy Board of Inspection and Survey. By the time the cutter sails from its Gulf Coast shipyard in mid-June, Blore expected all eight problems to be resolved....
>
> A Navy inspection identified 2,816 points, noted as "trial cards," plus the eight "starred" systems, that were incomplete or needed work aboard the 418-foot, $641 million Bertholf. Those points were carried over May 8 when the Coast Guard signed the paperwork to accept the ship in a "special commission" status, prompting a few members of Congress to criticize the Coast Guard for taking ownership of what critics fear is at best an unfinished ship, and at worst a lemon.
>
> Still, officials said Tuesday the cutter has used its first-of-its-kind stern ramp about 60 times to launch the new small boats it carries — the Long Range Interceptor and the Short-Range Prosecutor — and that its flight deck is ready to accept the first landings by Coast Guard helicopters.
>
> Top Coast Guardsmen also said they were confident that work was progressing on the Bertholf's command and communications gear, known by the acronym C4ISR, which had generated about 650 trial cards in its first inspection in June 2007. By the time of the most recent inspection, when a team from the Navy's Space and Warfare Command came aboard in April, there were 122 remaining C4ISR trial cards, officials said.
>
> The ship is to undergo its next major C4ISR inspection in the middle of August, Blore said, when it arrives in its new homeport of Alameda, Calif. [37]

On the issue of the fist NSC's information assurance capability, the Coast Guard states:

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[36] Bettina H. Chavanne, "USCG May Still Face Comms Issues After Accepting NSC Bertholf," *Aerospace Daily & Defense Report*, May 8, 2008: 3.

[37] Philip Ewing, "CG: Work On Bertholf Proceeding Apace," *NavyTimes.com*, May 28, 2008.

Before the BERTHOLF [the first NSC] becomes part of the Coast Guard's fleet it must go through a standardized Information Assurance (IA) process based on Federal and Department of Defense (DOD) policies, wherein delivered equipment and installation procedures are certified for compliance by the Coast Guard.

The Coast Guard's C4&IT Technical Authority, CG-6, anticipates that BERTHOLF will initially be granted a limited authority to operate some of its systems to facilitate the vessel's transit to its new homeport in Alameda, CA. In fact, an ATO [Authority to Operate] was granted on 30 April 2008 for a stand-alone classified messaging system; and on 09 May 2008, an Interim Authority to Operate (IATO) was approved for limited network connectivity of the unclassified local area network and general support system. No classified information is permitted to be loaded on any IT system until certification and accreditation is completed and approved by the Coast Guard's Designated Accrediting Authority (DAA)....

The IA process includes a large number of activities, one of which is known as TEMPEST testing. TEMPEST testing is comprised of visual and instrumented inspections to ensure compliance with emission security requirements....

The Coast Guard adheres closely to the Department of Homeland Security, Department of Defense and the National Security Agency rules, regulations, and protocols for TEMPEST testing and certification. As stated previously, no classified information is permitted to be loaded on any system that does not meet these stringent requirements....

The Coast Guard recognized early-on that since the BERTHOLF was "first in class," close attention needed to be paid to IA, since the contract emphasized commercial equipment and software use where possible. To mitigate this risk, the Coast Guard began testing and evaluating the systems as early as possible, often before installations were complete. This effort provided excellent data to the Coast Guard and contractor for focusing efforts. This preliminary testing revealed several areas within the BERTHOLF's C4ISR suite that required attention.

To date, the testing regimen has included the following informal and formal tests:

— Mini Instrumented TEMPEST Survey: May 31-June 3, 2007 — Various discrepancies were noted to the contractor for corrective actions.

— Visual TEMPEST Inspection: July 2007 — The inspection generated approximately 650 trial cards. These cards were given to the contractor for corrective actions.

— Mini Instrumented TEMPEST Survey: January 11-14, 2008 — During this inspection, issues were identified and discrepancies were noted to the contractor for corrective actions.

— Mini Instrumented TEMPEST Survey of the NSC mock-up at Coast Guard Training Center Petaluma: February 25-29, 2008 — During this inspection, issues were identified and discrepancies were noted to the contractor for corrective actions.

— A formal Visual TEMPEST Inspection and partial Instrumented Test Survey performed by USN SPAWAR was conducted in April 2008. The formal visual TEMPEST inspection revealed significant progress toward TEMPEST compliance, in that only 122 visual discrepancies remained from the original 650 trial cards. Due to time constraints resulting from ongoing shipyard work and other Information Assurance activities conducted by SPAWAR (software scans), the full Instrumented Test Survey is not yet complete. The full ITS will be completed following BERTHOLF's arrival to her new homeport in Alameda, CA. All outstanding discrepancies are documented on the DD250. The remaining TEMPEST discrepancies will be corrected prior to final certification and accreditation. The instrumented TEMPEST survey results are CLASSIFIED.

In April 2008, the Navy Board of Inspection and Survey (INSURV) inspectors verbally commented that the internal C4ISR cabling and wiring installation was of high quality. While there are some discrepancies, the C4ISR equipment functioned as designed for four separate underway trials. BERTHOLF's C4ISR equipment configuration has remained unchanged throughout all trials and during TEMPEST testing. New capability is scheduled to be added during post shakedown availability after final acceptance. Additional equipment and improvements will be incorporated as necessary (test-fix-retest methodology) to ensure systems are adequately shielded, bonded, and/or separated to eliminate any compromising emanations. The Coast Guard, over the coming months, will work with SPAWAR to improve the Information Assurance posture of BERTHOLF until all systems are certified and accredited.[38]

GAO Perspective On Program. In March 2008, GAO reported the following regarding the status of the NSC program:

Changes to the NSC have had cost, schedule, and performance ramifications.

The estimated costs for the first three ships have generally doubled from the initial projected costs due to a number of contributing factors, including requirements changes as a result of September 11, Hurricane Katrina damages, and some program management actions by the Coast Guard.

Delivery of the ship could be delayed. An aggressive trial schedule leaves little time for dealing with the unexpected, and most certifications have yet to be completed.

Coast Guard officials expect the ship to meet all performance parameters, but will not know for certain until the ship undergoes trials. Further, Coast Guard engineers have concerns that most of the ship's available weight margin has been consumed during construction, meaning that subsequent changes to the ship will require additional redesign and engineering to offset the additional weight.[39]

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[38] Coast Guard fact sheet on information assurance, available online at [http://www.uscg.mil/acquisition/newsroom/pdf/12MAY08_NSC_IA_Fact_Sheet_CG93_final.pdf].

[39] Government Accountability Office, *Status of Selected Aspects of the Coast Guard's Deepwater Program*, GAO-08-270R, March 11, 2008, pp. 2-3.

The GAO report also stated:

The NSC's projected costs have increased compared to the initial baseline, as shown in [GAO Report] Table [No.] 1.

[GAO Report] Table [No.] 1: Cost Growth for NSC 1 - 3 (Dollars in millions)

	NSC 1	NSC 2	NSC 3
Design	$67.7	—	—
Build	264.4	$200.7	$189.2
Govt. Furnished equipment (GFE)	52.8	50.0	40.0
Initial projected costs (2002)	**$384.9**	**$250.7**	**$229.2**
Requirements changes	75.9	60.0	60.0
Hurricane Katrina	40.0	44.4	38.7
Economic changes	58.3	69.9	86.8
Structural enhancements	40.0	30.0	16.0
Other GFE	41.5	40.7	73.9
Current projected costs (2008)	**$640.7**	**$495.7**	**$504.6**

Source: Coast Guard.
Note: Economic changes include, for example, escalation of material/labor and some costs associated with settling the REA. Other GFE includes certifications, tests, and training. For NSC 3, other GFE also includes additional government oversight.

Requirements changes to address post-9/11 needs are one of the main reasons for the cost increases. The new requirements include

- expanded interoperability with the Department of Defense, DHS, and local first responders;
- increased self-defense and survivability, including chemical, biological, and radiological measures;
- increased flight capability via longer and enhanced flight deck;
- upgraded weapon systems; and
- improved classified communication capabilities.

Another contributing factor was Hurricane Katrina, which not only caused considerable damage to the shipyard, including tooling, equipment, shops, and other facilities, but also caused an exodus of the experienced workforce. The overall number of shipworkers declined significantly, causing the contractor to use more overtime hours. The loss of workers, in turn, considerably disrupted the ship's learning curve, which normally results in greater efficiencies in production of subsequent ships.

However, some of the increase can be attributed to Coast Guard actions. For example, the contractor used the Coast Guard's failure to precisely execute the contract according to the implementation plan as basis for requesting an equitable adjustment. Furthermore, even though the Coast Guard's own technical staff raised fatigue life concerns — later confirmed by a U.S. Navy study —

during the design phase, the decision was made to proceed with production of the first two NSCs and enhance the structure later.[40]

With regard to the delivery schedule for NSC-1, the same GAO report stated:

> The first NSC was initially projected for delivery in 2006, but slipped to August 2007 after the 9/11 requirements changes. However, delivery was again delayed until April 2008. It is uncertain at this time whether the new delivery date will be met due to several factors involving testing, certifications, and other areas of technical risk.
>
> Machinery trials occurred in early December and builder's trials occurred February 8 - 11, 2008. The current schedule leaves little margin for delay. Acceptance trials are scheduled to begin April 7, 2008. The contract requires 30 days between acceptance trials and ship delivery, but the scheduled dates for these events are about 3 weeks apart. The Coast Guard and the contractor are aware of the discrepancy; however, no decision has been made on how to resolve this issue. The Coast Guard will have to either extend the delivery date of the ship to meet the requirement or waive it. Our prior work has shown that event-driven rather than schedule-driven decisions are preferable, thus it may be in the best interest of the Coast Guard to delay acceptance of the first NSC until a number of these issues are resolved.
>
> Of the 987 certification standards, ICGS was to submit documentation on 892 for review and acceptance by the Coast Guard Technical Authority. Almost all remain outstanding. In addition, the Coast Guard and contractor differed in their understanding of the number of certifications for which ABS was responsible. Northrop Grumman had contracted with ABS to certify 60 standards; however, the Coast Guard believed ABS was responsible for 84. According to Coast Guard officials, the issue has been resolved and ABS will now be responsible for 86 certifications. Further, for NSC 3 and later ships, ABS will be responsible for about 200 certifications. Other third parties will certify 11 of the standards.
>
> The Coast Guard has identified 13 issues pertaining to C4ISR and Hull, Mechanical, and Electrical as risk areas, 8 of which have moderate to high risk of occurrence or impact if not resolved. One of these relates to the results of the July 2007 visual TEMPEST inspection, conducted by a team of Coast Guard officials. The team reported hundreds of discrepancies, over 40 percent of which pertain to cable grounding and separation, such as cables intended for classified information not being adequately separated from those intended for nonclassified information. Coast Guard officials told us that they requested the test be done earlier than usual so that issues could be identified and corrected sooner.
>
> Coast Guard and Navy personnel noted that having open issues with a ship — particularly for the first in class — at the time of delivery is normal. After acceptance, the Coast Guard plans to conduct operational testing at sea for approximately 2 years, during which time open issues can be resolved. The ship

[40] Ibid, Objective #3 (page 4).

> will officially become operational thereafter, which, based on the current schedule, will be March 2010.[41]

With regard to performance parameters for the NSC, the same GAO report stated:

> Key performance parameters for the NSC were first defined in the Acquisition Program Baseline submitted for DHS approval in November 2006. Coast Guard officials explained that the key performance parameters were derived from performance specification requirements that had been in place before contract award....
>
> The key performance parameters have not been changed due to post-9/11 mission requirements. Coast Guard officials expect the NSC to meet the current threshold parameters, but they will not know for certain until the ship undergoes sea trials.
>
> However, the Coast Guard's Engineering Logistics Center officials expressed concern about the ship's weight margin. Ship designs typically include a margin for additional weight to accommodate service enhancements during the ship's service life. The officials noted that most of the available weight margin has already been consumed during construction — not including the fatigue life structural enhancements. The officials further noted that subsequent changes to the ship will cost more than they would have otherwise due to additional redesign and engineering that may be necessary to offset the additional weight. Coast Guard officials noted, however, that a mitigation strategy is in place and adjustments are being made that will increase the service life weight margin.[42]

110-Foot Patrol Boat Modernization

On May 17, 2007, the Coast Guard issued a letter to ICGS revoking its previous acceptance of the eight converted boats — an action intended to facilitate Coast Guard attempts to recover from ICGS funds that were spent on the eight converted boats.[43]

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

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[41] Ibid, Objective #3 (page 5).

[42] Ibid, Objective #3 (page 6).

[43] 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.

issue.[44] 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.[45]

In early-June 2008, it was reported that:

> At the behest of the Justice Department [DOJ], the Coast Guard said it will temporarily stop pursuing contractual remedies against Integrated Coast Guard Systems, the makers of the service's eight decommissioned 123-foot patrol boats.
>
> In January, the Coast Guard sought a $96 million refund from ICGS, a partnership between Northrop Grumman and Lockheed Martin, for the faulty converted hulls. It has since been preparing for alternative dispute resolution, said Rear Adm. Gary Blore, the Coast Guard's assistant commandant for acquisition and chief acquisition officer.
>
> But in an apparent shift of strategy, those efforts have recently been put aside pending the outcome of a DOJ investigation into the matter.
>
> "In light of the Department of Justice's lead on the investigation, we are taking a step back from our contractual actions, because we don't want those two -- our administrative process and Department of Justice's process -- to interfere with each other," Blore said at May 27 briefing. "We may re-pursue the contractual remedies depending on what happens with the Department of Justice, but for right now, in agreement with the Department of Justice, we're basically throwing our staff support behind them as they do their discovery and facts analysis."
>
> Blore said the Coast Guard will provide DOJ and the Department of Homeland Security's inspector [g]eneral, which is a partner in the investigation, with documentation and technical support. They will also provide staff expertise in contracting and acquisitions processes.
>
> Data will also be provided to DOJ as we "continue our own vigorous naval engineering analysis of the hull," Blore said....
>
> It is not clear when DOJ stepped up its investigation into the 123-foot patrol boats, nor when such an investigation might be completed. Calls to DOJ and the DHS IG were not returned....
>
> "I do not know how long the Department of Justice process will take, but I suppose it's inferred that the government sat down and discussed this," Blore

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[44] 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.

[45] 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.

said. "We feel the government's equities are best represented by letting the Department of Justice take the lead on this."[46]

Fast Response Cutter (FRC)

On March 14, 2007, the Coast Guard announced that it intended to procure the 12 FRC-B cutters directly from the manufacturer, rather than through ICGS.[47] 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. The Coast Guard stated on May 1, 2008 that:

> The FRC-B acquisition strategy includes procuring patrol boats based on an existing, proven design (Parent Craft). The Parent Craft is required to have been previously operated as a patrol craft in unrestricted service for a minimum of two years, or six years if only a single Parent Craft exists. Utilizing a proven design will reduce the time and cost required to design and develop the cutter.
>
> To meet the current urgent need for patrol boat capability, the Coast Guard has established a required delivery of the first cutter no later than 2010. The remainder of the first 12 cutters will be delivered by 2012. The Request for Proposals has options that allow for the acquisition of up to 34 cutters.[48]

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.[49]

The Coast Guard stated on May 22, 2008, that "Proposals are currently being evaluated and the contract is expected to be awarded in the third quarter of Fiscal Year 2008."[50] In early-June 2008, it was reported that the Coast Guard plans to award the contract in July 2008. The report stated:

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[46] Rebekah Gordon, "Coast Guard Defers To Justice Department In Patrol Boat Inquiry," *Inside the Navy*, June 2, 2008. See also Philip Ewing, "CG Patrol Boat Talks Paused For DOJ Probe," *NavyTimes.com*, May 28, 2008.

[47] 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.

[48] Coast Guard discussion of FRC-B program on the Internet at [http://www.uscg.mil/acquisition/frcb/projectdescription.asp].

[49] 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.

[50] Source: Coast Guard discussion of FRC-B program on the Internet at [http://www.uscg.mil/acquisition/frcb/default.asp].

"The Coast Guard has recently made a competitive range decision on the FRC-B," Rear Adm. Gary Blore, the Coast Guard's acquisition chief, said. "The competitive range includes offers with the most highly-rated proposals."...

"What we are waiting for is for the contract award for FRC-B, and to get a little more evaluation information once we go into low-rate initial production on that patrol boat. We think there's a reasonable chance that it may meet all the original requirements of the FRC. If it does, then, that may be the solution," Blore said. "Right now, we're not actively pursuing composites [i.e., composite materials for use in the hull for the FRC-A] and we'll see where the FRC-B leads us."[51]

In March 2008, GAO reported that:

The Coast Guard obligated approximately $35 million on the ICGS design for the FRC, but concerns prompted officials to put the acquisition on hold. To fill its urgent need for patrol boats, the Coast Guard plans to award a contract for a commercially available design of the FRC. Coast Guard officials said this approach will help ensure competition and meet their tight time frames. The new requirements for this design of the FRC have some differences. These include a top speed that is 2 knots slower — 28 instead of 30 knots — and allowance of a manual small-boat launch and recovery system that Coast Guard officials said is not as safe and requires more crew to operate than the preferred stern ramp system.[52]

The same GAO report also stated:

FRC-A Design Efforts Remain Suspended

Since the FRC-A acquisition effort began, the Coast Guard obligated approximately $35 million to ICGS for the design of this asset, but a viable design has not been produced. Coast Guard officials told us that at this time design efforts remain suspended; they do not expect to incur any additional costs related to the FRC-A. The original estimate for the fleet of 58 FRC-As was approximately $3.2 billion.

Due to high risk and uncertain cost savings, Coast Guard officials recommended to the Commandant that the Coast Guard not pursue acquisition of an FRC-A design that includes unproven composite hull technology. The officials told us this recommendation was largely based on a third-party analysis that found the composite technology unlikely to meet the desired 35-year service life under the Coast Guard's operational conditions. Therefore, officials believe that the use of the proposed composite materials would not offset high initial acquisition costs, as ICGS had initially proposed.

Cost, Schedule, and Performance of FRC-B

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[51] Rebekah Gordon, "Coast Guard To Award Contract In July For Fast Response Cutter B," *Inside the Navy*, June 2, 2008.

[52] Government Accountability Office, *Status of Selected Aspects of the Coast Guard's Deepwater Program*, GAO-08-270R, March 11, 2008, p. 2.

In June 2007, the Coast Guard issued an RFP for the design, construction, and delivery of a modified commercially available patrol boat for the FRC-B. The Coast Guard estimated, in late 2006, that the total acquisition cost for 12 FRC-Bs would be $593 million. Coast Guard officials do not plan to update cost estimates for the FRC-B until after the contract is awarded. The Coast Guard is currently evaluating proposals and expects to award the FRC-B contract in the third quarter of fiscal year 2008, with the lead cutter to be delivered in 2010. Coast Guard officials stated that their goal is still to acquire 12 FRC-Bs by 2012. The contract will include a 2-year base period for the design and production of the lead cutter and six 1-year option periods. The first option period includes 3 low-rate initial production cutters, and the subsequent five option periods include an option of 4 or 6 cutters each. The Coast Guard intends to award a fixed price contract for design and construction of the FRC-B, with the potential to acquire a total of 34 cutters.

Regarding performance, there are some key differences in the FRC-B, as outlined in the RFP, compared with the requirements for the FRC-A. One difference is speed — the Coast Guard lowered the minimum requirement for sprint speed from 30 knots for the FRC-A to 28 for the FRC-B. Another pertains to onboard small boat launch-and-recovery mechanisms: the initial design for the FRC-A included a stern ramp launch. This capability is not required on the FRC-B. However, Coast Guard officials expressed a preference for the stern ramp launch-and-recovery system because it would be safer and require fewer crew to operate than a manual alternative. Coast Guard officials said that eliminating these design requirements would ensure more competition on the open market and meet their urgent need for patrol boats.[53]

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'.

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

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[53] Ibid, Objective #2 (page 3).

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."[54]

Potential Options for Congress

In addition to approving or modifying the Coast Guard's requests for FY2009 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, including implementation of reform actions announced by the Coast Guard itself or recommended by GAO;
- modify reporting requirements for the Deepwater program;
- prohibit the obligation or expenditure of some or all FY2009 funding for Deepwater acquisition programs until the Coast Guard or DHS takes certain actions or makes certain certifications regarding the Deepwater program; and
- pass legislation to codify Deepwater acquisition reforms that the Coast Guard has already announced, or to change Deepwater acquisition in other ways.

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

Legislative Activity in 110th Congress

Congressional Action on FY2009 Funding Request

Table 4 shows Congressional action on the FY2009 funding request for Deepwater acquisition programs.

Bills and Laws

Bills and laws in the 110th Congress relating to Deepwater acquisition include the following:

- **H.R. 2830/S. 1892**, the Coast Guard Authorization Act of 2008;
- **H.R. 2638/S. 1644**, the FY2008 Department of Homeland Security appropriations act, which was incorporated into the FY2008 Consolidated Appropriations Act (**H.R. 2764/P.L. 110-161** of December 26, 2007);
- **H.R. 2722/S. 924**, the Integrated Deepwater Program Reform Act;
- **S. 889**, the Deepwater Accountability Act; and
- **H.R. 2206/P.L. 110-28**, the FY2007 emergency supplemental appropriations act.

Statement of Administration Policy on H.R. 2830

An April 23, 2008, statement of Administration policy opposing passage of H.R. 2830 stated in part:

> As well, the Administration urges the House to delete those provisions of the bill that would adversely affect Coast Guard missions. Specifically, the Administration urges the House to delete those provisions that would:... (4) prescribe contracting and acquisition practices for the Deepwater program, as these practices would increase the costs of, and add delay to, the Deepwater acquisition process and circumvent review and approval authority of Coast Guard technical authorities.[55]

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[55] Executive Office of the President, Office of Management and Budget, *Statement of Administration Policy, H.R. 2830 — Coast Guard Authorization Act of 2008*, April 23, 2008, available online at [http://www.whitehouse.gov/omb/legislative/sap/110-2/saphr2830-h.pdf]

Table 4. Congressional Action on FY2009 Acquisition Funding Request

(in millions of dollars, rounded to nearest tenth)

	Request	Appropriation					
		House (H.R. XXXX)	House change from request	Senate (S. XXXX)	Senate change from request	Conference (H.R. XXXX)	Conference change from request
Air assets							
Maritime Patrol Aircraft	86.6						
HH-60 Conversion	52.7						
HH-65 Conv./Sust.[a]	64.5						
HC-130H Conv./Sust.[a]	24.5						
HC-130J Fleet Intro.[a]	0						
Armed Helo Equip.[a]	0						
UAS[a]	3.0						
Subtotal aircraft	*231.3*						
Surface assets							
NSC	353.7						
OPC	3.0						
FRC-B	115.3						
Deepwater small boats	2.4						
WMEC sustainment[a]	35.5						
Patrol boats sustainment	30.8						
FRC-A	0						
Subtotal surface ships	*540.7*						
Other							
Govt. program mgt.	58.0						
Systems eng. and int.[a]	33.1						
C4ISR	88.1						
Deepwater logistics	37.7						
Tech. Obsol. Prev.[a]	1.5						
Subtotal other	*218.4*						
TOTAL FY2008	**990.4**						
Rescissions of prior-year funding							
[none]	0						
Subtotal rescissions	*0*						
NET TOTAL	**990.4**						

Source: U.S. Coast Guard Posture Statement With [FY] 2009 Budget in Brief, p. 49 (Table 4). Totals may not add due to rounding.

a. Conv./Sust. is Conversion/Sustainment Projects; Fleet Intro. is Fleet Introduction; Armed Helo. Equip. is Armed Helicopter Equipment (Airborne Use of Force); UAS is Unmanned Aircraft System; WMEC is medium-endurance cutter; eng. and int. is engineering and integration; Tech. Obsol. Prev. is Technology Obsolescence Prevention.