

# CRS Report for Congress

Received through the CRS Web

## Coast Guard Deepwater Program: Background and Issues for Congress

Ronald O'Rourke  
Specialist in National Defense  
Foreign Affairs, Defense, and Trade Division

### Summary

The Deepwater program is a 20- to 25-year acquisition effort to replace or modernize 93 aging Coast Guard ships and 207 aging Coast Guard aircraft. The Coast Guard's proposed FY2006 budget requests \$966 million for the program. On March 25, 2005, the Coast Guard submitted to Congress a revised implementation plan for the program. Some Members of Congress have criticized the plan on several grounds. On May 17, 2005, the House passed, 424-1, H.R. 2360, the FY2006 Department of Homeland Security (DHS) appropriations bill. The bill reduces the Deepwater funding request to \$500 million. This report will be updated as events warrant.

### Background<sup>1</sup>

**Introduction.** The Coast Guard Deepwater program, known formally as the Integrated Deepwater Systems (IDS) program, is a project to replace and modernize the Coast Guard's aging fleet of deepwater-capable cutters, patrol boats and aircraft. It is the largest and most complex acquisition program in Coast Guard history. The issue for Congress is whether to approve, reject, or modify the Administration's funding requests and overall approach for the program. Congress' decisions on this issue could affect Coast Guard capabilities, Coast Guard funding requirements, and the U.S. shipbuilding and aircraft industry.

**Deepwater Missions.** The Coast Guard performs a variety of missions in the deepwater environment (which generally means waters more than 50 miles from shore), including the following: drug interdiction, alien migrant interdiction, fisheries enforcement, search and rescue, the International Ice Patrol in northern waters; overseas maritime intercept (sanctions-enforcement) operations, overseas port security and defense, overseas peacetime military engagement; general defense operations in conjunction with the Navy; marine pollution law enforcement, enforcement of lightering (i.e., at-sea cargo-transfer) zones, and overseas inspection of foreign vessels entering U.S. ports.

---

<sup>1</sup> For additional background information on the Deepwater program, see the program's Internet page at [<http://www.uscg.mil/deepwater/>].

# Report Documentation Page

Form Approved  
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

|  |                                    |                                     |                            |   |                                 |
|--|------------------------------------|-------------------------------------|----------------------------|---|---------------------------------|
| 1. REPORT DATE<br><b>19 MAY 2005</b>   |                                    | 2. REPORT TYPE                      |                            | 3. DATES COVERED<br><b>00-00-2005 to 00-00-2005</b> |                                 |
| 4. TITLE AND SUBTITLE<br><b>Coast Guard Deepwater Program: Background and Issues for Congress</b>  |                                    |                                     |                            | 5a. CONTRACT NUMBER                                 |                                 |
|  |                                    |                                     |                            | 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)<br><b>Congressional Research Service, The Library of Congress, 101 Independence Avenue SE, Washington, DC, 20540-7500</b> |                                    |                                     |                            | 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<br><b>Approved for public release; distribution unlimited</b>  |                                    |                                     |                            |   |                                 |
| 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<br><b>unclassified</b>   | b. ABSTRACT<br><b>unclassified</b> | c. THIS PAGE<br><b>unclassified</b> |                            |   |                                 |

**Legacy Deepwater-Capable Assets.** The Coast Guard’s “legacy” assets for performing deepwater missions include 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.

**Deepwater Program Competition and Contract Award.** On June 25, 2002, the Coast Guard announced that Integrated Coast Guard Systems (ICGS) — an industry team led by Lockheed Martin and Northrop Grumman’s Ship Systems division — was the winner of the Deepwater competition. ICGS was awarded a \$16.95-billion, 20-year contract. The contract may be extended up to 30 years, which would increase its value beyond \$17 billion.

**Systems to Be Procured or Modernized.** On March 25, 2005, the Coast Guard submitted to Congress a revised implementation plan for the Deepwater program. The revised implementation plan includes the acquisition or modernization over a 20- to 25-year period of the following ships and aircraft:

**Ships, boats, and surface craft:**

- 6 to 8 new *National Security Cutters, or NSCs (also called Large Maritime Security Cutters, or WMSLs)*, displacing about 4,000 tons each (i.e., ships analogous to today’s high-endurance cutters);
- 25 new *Offshore Patrol Cutters, or OPCs (also called Medium Maritime Security Cutters, or WMSMs)*, displacing about 3,200 tons each (i.e., ships analogous to today’s medium-endurance cutters);
- 43 to 58 new *Fast Response Cutters (FRCs)* displacing 200 tons each;
- 31 to 33 *Long Range Interceptor (LRI) craft* displacing 15 tons each; and
- 74 to 91 *Short Range Prosecutor (SRP) craft* displacing 9 tons each.

**Aircraft:**

- 22 *modernized HC-130H/J Long Range Search (LRS) aircraft*;
- 20 to 36 new *HC-235 Medium Range Search (MRS) aircraft*, also known as Maritime Patrol Aircraft (MPA), based on based on the European Aeronautic Defence and Space Company (EADS) CASA HC-235 Persuader MPA aircraft design;
- 42 *modernized HH-60J Medium Range Recovery (MRR) helicopters*;
- 95 *re-engined and modernized HH-65C Multi-Mission Cutter Helicopters (MCHs)*;
- 45 new *HV-911 Eagle Eye VTOL (vertical take-off or landing) Unmanned Aerial Vehicles (VUAVs)*; and
- 4 *leased RQ-4A Global Hawk High Altitude Endurance UAVs (HAEUAVs)*.

**Estimated Total Acquisition Cost and FY2006 Funding Request.** The Coast Guard estimates the total acquisition cost of the Deepwater program under the revised implementation plan at \$19 billion to \$24 billion over 20 to 25 years. The Coast Guard’s proposed FY2006 budget requests \$966 million for the program.

## Issues for Congress

**Program Scope and Schedule.** One potential issue for Congress is whether the Coast Guard's March 2005 revised implementation plan, which is intended to reflect a post-9/11 analysis of future Coast Guard mission requirements (as well as more up-to-date data on how quickly legacy Coast Guard assets are wearing out), is adequate in terms of program scope and schedule. A 2004 RAND Corporation report recommended substantially increasing the number of numbers of cutters and aircraft to be acquired under the program.<sup>2</sup> Other observers have argued that the original Deepwater program's 20- to 22-year acquisition schedule was economically inefficient and too leisurely to meet urgent post-9/11 mission needs, and expressed interest in the idea of compressing the Deepwater acquisition period to as few as 10 years.<sup>3</sup> Some Members of Congress have criticized the revised implementation plan on the grounds that it does not provide sufficient transparency, accountability, or predictability; that it increases funding to be spent on modernizing legacy assets at the expense of acquiring new assets; and that it stretches the program out to as much as 25 years rather than compressing it to something less than 20.<sup>4</sup>

**Program Management.** The Government Accountability Office (GAO) has on multiple occasions expressed concerns about the Coast Guard's ability to manage the Deepwater program, in part because of the potential risks to the government of the Deepwater acquisition strategy, under which an industry team (i.e., ICGS) acts as the lead integrator for the entire project.<sup>5</sup> A November 2004 report by the DHS Inspector General

<sup>2</sup> John Birkler, et al., *The U.S. Coast Guard's Deepwater Force Modernization Plan: Can It Be Accelerated? Will It Meet Changing Security Needs?* RAND, National Security Research Division, MG-114, 2004.

<sup>3</sup> Coast Guard officials indicated that funding the Deepwater program in FY2005 at a level of \$1.1 billion would permit the Deepwater program to return to a 20-year schedule ending in 2022. Continuing to fund the program at \$1.1 billion per year, they indicated, would permit the program to be completed in 14 years (i.e., by 2016). Section 888(I) of H.R. 5005/P.L. 107-296 directed DHS to report to Congress on the idea of compressing the Deepwater program 20 years to 10 years. On March 12, 2003, the Coast Guard submitted the report, which concluded that compressing the Deepwater acquisition period to 10 years was feasible, that it would increase Deepwater acquisition costs over the five-year period FY2005-FY2011 by about \$4.7 billion in then-year dollars but reduce total Deepwater acquisition costs over the long run from \$16.022 billion in then-year dollars to \$11.473 billion in then-year dollars. (U.S. Coast Guard, *Report to Congress on the Feasibility of Accelerating the Integrated Deepwater System*, 2003.)

<sup>4</sup> See, for example, Kathy A. Gambrell, "Lawmakers Fault Changes In Coast Guard Acquisition Program," *GovExec.com*, Mar. 30, 2005; Calvin Biesecker, "Collins, Lieberman Blast Revised Deepwater Plan," *Defense Daily*, Mar. 30, 2005; Caitlin Harrington, "Senators Drop Anchor on Coast Guard's Fleet Rebuilding Pace," *CQ Homeland Security*, Mar. 28, 2005; Dave Ahearn, "Collins, Lieberman Flail DHS For Weak Support of Deepwater Program," *Defense Today Instant Update*, Mar. 28, 2005.

<sup>5</sup> See Government Accountability Office, *COAST GUARD[:] Preliminary Observations on the Condition of Deepwater Legacy Assets and Acquisition Management Challenges*, GAO-05-307T, Apr. 20, 2005; Government Accountability Office, *Coast Guard[:] Observations on Agency Priorities in Fiscal Year 2006 Budget Request*, GAO-05-364T, Mar. 2005; General Accounting Office, *Contract Management: Coast Guard's Deepwater Program Needs Increased Attention to Management and Contractor Oversight*, GAO-04-380, Mar. 2004; and General Accounting

(continued...)

also expressed concern for the program, particularly with regard to plans for maintaining legacy deepwater-capable assets until they are replaced by new assets.<sup>6</sup>

**Industrial Base.** Accelerating and expanding procurement of NSCs and OPCs is an option for bolstering the industrial base that builds surface combatants for the Navy.<sup>7</sup>

## Legislative Activity in 2005

**H.R. 2360, FY2006 DHS Appropriations Bill.** On May 17, 2005, the House passed, 424-1, H.R. 2360, the FY2006 DHS appropriations bill. The bill reduces the Deepwater funding request to \$500 million, a \$466-million reduction. The report on the bill (H.Rept. 109-79 of May 13, 2005) states:

The Committee is wholly disappointed in the Coast Guard's management of this program and its utter disregard for the legislative direction included in P.L. 108-334, intended to clarify the program's total cost, acquisition timeline, and implementation schedule. Since the Coast Guard has failed to submit an updated plan that sufficiently justifies the entire Deepwater program, the Committee is providing an appropriation consistent with the original and previously approved, 20-year plan. While the Committee remains supportive of the replacement of the Coast Guard's aging cutters and aircraft, it is not confident in the Deepwater programmatic model as means to achieve this goal at this point in time.

The Deepwater program was intended to be a departure from 'traditional' capital acquisition and a move towards a more holistic, more integrated, and more efficient process of recapitalization. In theory, the Deepwater concept is a very logical approach for the Coast Guard — an operational, armed service whose current cutters and aircraft are collectively reaching the end of their service lives at approximately the same time. However, two events have stressed this program and moved it away from its theoretical, network-based approach: (1) the events of September 11, 2001, and the resulting mission focus upon homeland security and counter terrorism, and (2) the increasingly rapid failure of legacy assets such as the HH-65 helicopters and 110-foot patrol boats.... Recognizing that Deepwater was at a crossroads and despite ostensible reluctance by the Coast Guard, the Committee required the service to re-baseline the entire program in the fiscal year 2005 appropriations bill (P.L. 108-334). The intent of the re-baselining requirement was not only to gather a more firm understanding of the total cost and implementation plan of the Deepwater program, but also to align the program's modifications with the new and enhanced mission capabilities required of the Coast Guard in the post-9/11 environment. The Coast Guard's failure to comply with this legislative directive suggests not only a fundamental disregard for the Committee and Congress, but also brings into question

---

<sup>5</sup> (...continued)

Office, *Coast Guard: Deepwater Program Acquisition Schedule Update Needed*, GAO-04-695, June 2004.

<sup>6</sup> Department of Homeland Security, Office of Inspector General, *Major Management Challenges Facing The Department of Homeland Security*, Washington, 2004, p. 18.

<sup>7</sup> For additional discussion of this issue, see CRS Report RS21059, *Navy DD(X) and CG(X) Programs: Background and Issues for Congress*, by Ronald O'Rourke and CRS Report RL32109, *Navy DD(X), CG(X), and LCS Ship Acquisition Programs: Oversight Issues and Options for Congress*, by Ronald O'Rourke.

how the Coast Guard itself is able to manage its own future. The Committee believes this re-baselining to be both crucial in terms of Congressional oversight and essential in terms of the Coast Guard's acquisition management and operational planning. The fact that the Coast Guard was over two months late in submitting a re-baselining and that its content was totally insufficient and not in compliance with the specified Congressional requirements, prohibits the Committee from considering such an expansive request for this program for fiscal year 2006. In fact, the lack of responsiveness by the Coast Guard prohibits the Committee from considering a major departure from the previously approved plan and associated funding structure and compels the Committee to take aggressive action to properly oversight this costly and sprawling program. To date, the Committee has yet to receive a report that fully satisfies the re-baselining requirements of P.L. 108-334. The Coast Guard has spent considerable time and effort attempting to rationalize a flawed and incomplete re-baseline plan, rather than adhering to the Congressional mandate and updating the previously submitted and approved 20-year plan or providing any justification for why such a re-baseline cannot be done.

The current state of the Deepwater program includes a myriad of questions ranging from an absence of a cogent policy on the future of the Coast Guard's patrol boats to a lack of a definitive maritime patrol aircraft solution to an alarmingly high increase in legacy asset sustainment.... The uncertainty surrounding [the 110-foot Island Class patrol boats and the HH-65 helicopter engine replacements] — arguably the most heavily used operational assets in the Coast Guard's fleet — typifies why a functional Deepwater solution is needed now....

The Coast Guard has expressed reservations about submitting a revised baseline for the Deepwater program. The report that was submitted amounts to only a five-year plan along with estimated ranges of total program cost and the total number of assets. The Coast Guard has stated within this plan that it is uncertain as to the total number of assets that will be needed because of the untested potential of C4ISR systems as well as uncertainty of future funding. The Committee fails to understand how the Coast Guard can so directly state that it will meet all required performance requirements while, at the same time, providing only ranges of cost and asset totals. The Committee also fails to understand why there is such a degree of uncertainty about how new C4ISR systems will translate into performance capability, given the Coast Guard's operational experience and partnership with the Deepwater prime integrator. In fact, the Committee believes that one of the primary tenets of the Deepwater contract was to leverage the knowledge base of industry's best and brightest to formulate a robust, technically sophisticated 20-year plan. Given the significant role and payment structure of the prime integrator within the Deepwater program, the Committee believes the Coast Guard has a technically proficient resource from which to project firm estimates for the entire span of the Deepwater program. Since the Coast Guard had previously submitted a full, 20-year plan with the original Deepwater proposal, the Committee believes it is more than reasonable to require a revised and comprehensive plan that is predicated upon the new, post-9/11 environment.

The confluence of issues surrounding Deepwater has made fiscal year 2006 the tipping point for this program. Therefore, the Committee requires a completely revised Deepwater implementation plan that includes: a comprehensive acquisition timeline for the entire Deepwater program based upon the revised mission needs statement that is compared against the original Deepwater timeline; an exhaustive asset-by-asset breakdown of the entire program, aligned with the comprehensive acquisition timeline and revised mission statement that clearly shows the details of the

phase-out of legacy assets and the phase-in of new, replacement assets; an aggregate total cost and timeline of the entire program that aligns with the acquisition timeline and asset-by-asset breakdown; the revised, post-9/11 mission needs statement (MNS); a detailed progress report of the C4ISR equipment upgrades that have been installed on currently operational Deepwater assets and a complete, aggregate timeline for when such equipment will be installed on all legacy Deepwater assets; and a detailed projection of the remaining operational lifespan of every type of legacy cutter and aircraft. The Committee believes this report to be essential to the fiscal year 2007 appropriations process, just as the previously requested re-baselining request was inextricably linked to the fiscal year 2006 appropriation. The Committee restricts \$50,000,000 of funds available for obligation until a revised Deepwater implementation plan, which fully complies with the outlined statutory requirements, has been received. ...

The Committee is extremely concerned about the operational status and rapidly increasing maintenance costs of Deepwater legacy assets.... The Committee requires the Coast Guard to submit a legacy asset report not later than January 16, 2006, that describes the remaining operational life span of each and every one of its legacy cutters and aircraft that are part of the Deepwater program....

The 110-foot Island Class patrol boats serve as a major operational component for the Coast Guard and are often referred to as the `workhorse' of the cutter fleet. However, the service life of these assets is rapidly diminishing due to significant hull erosion and C4ISR obsolescence. To address this issue, the Coast Guard and its Deepwater program integrator designed a 110-to-123 conversion program.... Through the course of the first hull conversion on the USCGC MATAGORDA, it was revealed that there was far greater hull damage than originally estimated. Since the completion of the MATAGORDA conversion, the Coast Guard and its patrol boat contractor have experienced repeated delays in this program and encountered significant hull degradation on subsequent cutters. The Coast Guard has effectively halted the conversion program by not obligating \$83,999,942 in funds appropriated for this purpose. While the Coast Guard has sped up the development and long-lead items associated with the FRC and the conversion program idles, there appears to be a significant capability gap emerging due to the absence of a definitive patrol boat solution. This is further complicated by the fact that six 110-foot patrol boats are operating overseas in support of the Global War on Terrorism with no clear expectation of when they might return to domestic operations. To bridge this capability gap, the Coast Guard has pointed to the recent acquisition of five, 179-foot Cyclone Class patrol boats from the Navy and further emphasized the rapid development of the FRC. The Committee is completely dissatisfied by this course of action and is extremely concerned about the Coast Guard's ability to execute its missions without an effective patrol boat fleet.... the Coast Guard is approaching a prolonged period where aging 110s will either not be refurbished to the extent required or not be replaced by a newer, more capable asset. The Committee finds this situation unacceptable and believes immediate action is necessary to avoid any loss in the Coast Guard's operational capability or in our nation's maritime security. To provide immediate action, the Committee includes a provision (Section 526) rescinding unobligated funds in the amount of \$83,999,942 that were appropriated for the 110-to-123 conversions in fiscal years 2004 and 2005, and re-appropriating the funds towards the purchase of new Island Class patrol boats or the major maintenance availability of currently operating 110s....