U. S. DEPARTMENT OF HOMELAND SECURITY

UNITED STATES COAST GUARD

Report

On the

Revised Deepwater Implementation Plan 2005

The Department is submitting this report on the Revised Deepwater Implementation Plan 2005 in response to the House Conference Report 108-774, accompanying the FY05 Department of Homeland Security Appropriations Bill (H.R. 4567), directing the Department of Homeland Security to present a revised Deepwater implementation plan with its fiscal year 2006 budget request.

Executive Summary

Conceived in the late 1990s to modernize a rapidly deteriorating legacy inventory of cutters and aircraft, the Integrated Deepwater System was designed to replace the major surface and air assets in the Coast Guard inventory that existed at the end of the 20th century—a period when the international terrorist threat did not represent a clear and present danger to U.S. national and homeland security. Since 9/11, the United States has revised its homeland security posture to better address dangerous and pervasive threats that were not fully considered when the original Deepwater system was designed in 1998. The current threat environment is characterized by a wider range of recognized adversaries, a more fulsome understanding of the global profusion of technology and advanced weaponry, and growing threats of asymmetric terrorist attacks within the maritime environment.

The events of September 11, 2001, have changed the performance requirements for Coast Guard people and the assets they use. Today's Coast Guard, outfitted with assets designed for the threat environment of 30 to 40 years ago, lacks the maritime-security and network-centric capabilities so essential for 21st-century operational effectiveness. The Deepwater system simply could not do all that would be required of it after September 11, 2001. Additionally, at a time when the Coast Guard had planned to reduce its reliance on its legacy assets by transitioning to a new system, the Coast Guard has actually increased the operational demands on its Deepwater legacy assets. The basis for the Deepwater acquisition has been impacted by two factors: (1) legacy asset deterioration at a greater pace than initially forecast, and (2) capability gaps as a result of post 9/11 requirements. The deterioration of the Coast Guard's legacy assets will be discussed at greater length in a separate legacy asset maintenance report.

The revised Deepwater implementation plan addresses the dual challenges of legacy asset deterioration and performance gaps by (1) enhancing the performance of selected Deepwater assets through added capabilities and (2) adjusting the implementation schedule and mix of individual assets. The Deepwater system encompasses these with a leading edge federal acquisition strategy which will allow the Coast Guard to respond to changing conditions and threats and provides a vehicle for capability and schedule adjustments.

Deepwater's system of systems, performance-based acquisition approach represents a new model for a comprehensive modernization and recapitalization program. Instead of replacing assets on a platform-class by platform-class basis, the original design for the Deepwater solution came from industry, which was provided with specifications for the capabilities the Coast Guard must possess to perform its system-wide Coast Guard specified missions. This innovative approach started by empowering industry to leverage state-of-the-market technologies to achieve Deepwater's overarching goal of maintaining and improving operational performance while managing total ownership costs within an aggressive baseline. This performance-based approach directly links mission requirements to industry solutions and is

consistent with the Government Performance Results Act and OMB policy on Performance Goals and Management. Performance-based acquisitions are consistent with Initiative 5 of the President's Management Agenda: Budget and Performance Integration.

The original Integrated Deepwater System (IDS) Mission Need Statement (MNS) captured the Coast Guard's requirement for a system-of-systems solution for its recapitalization requirements: "The goal of this effort is not to replace ships, aircraft, and sensors with more ships, aircraft, and sensors, but to provide the Coast Guard with the ***functional capabilities*** required to achieve mission success safely." This compelling emphasis on a sharply focused "end in mind" obliged industry to view the Deepwater system in its ***entirety*** in order to develop an ***integrated*** strategic plan that ensured asset comparability and interoperability, while providing high levels of operational performance and the most affordable solution for U.S. taxpayers.

Deepwater's contract vehicle is a unique Indefinite Delivery – Indefinite Quantity with one base award term of 5 years and up to 5 additional award terms. It uses a performance-based acquisition strategy where mission requirements and performance objectives are linked to the solutions measured by Deepwater-wide mission operational performance and total ownership cost, not just individual asset performance. Integrated Coast Guard Systems' (ICGS') profit is dependent on performance through cost plus award fee and execution of individual Delivery Task Orders (DTOs). Incentives include award fee, award term, value engineering change proposals, and share-in-savings arrangements. In the event of budget fluctuations, Deepwater's contract will function like other contracts. The Coast Guard and ICGS will work together to choose which DTOs to execute based on mission, requirements and funding factors.

The Coast Guard utilizes a number of management tools to track execution and management of individual DTOs and manage the overall contract, including an Earned Value Management System (EVMS), Cost Performance Reports (CPRs) that outline cost and schedule variances which are submitted monthly by ICGS to the Coast Guard as part of the EVMS, DTO Issuance Status Reports which are updated bi-weekly and reviewed by DTO managers and a number of oversight teams, and the Integrated Master Schedule (IMS) which is organized by contract line items and broken into three tiers of detail. The Tier 1 IMS provides a near-term status of the DTOs. With this type of contract management approach, Deepwater will be successful in managing a truly unique performance based contract of immense value to the nation.

To ensure that the assets delivered by the Deepwater program allowed the Coast Guard to meet its new mission performance requirements, the Coast Guard began to adjust Deepwater shortly after the contract was awarded in June 2002 by modifying the capabilities required of the first major new asset, the National Security Cutter (NSC). These changes are included in the revised Deepwater implementation plan and will allow the first NSC to conduct maritime homeland security missions beginning in 2007.

Along with the immediate changes to the NSC's design specifications, the DHS and the Coast Guard recognized the need to conduct a thorough review of the plans for all of the Deepwater assets. Changes to the national strategic security environment after 9/11 necessitated modifications to the Deepwater program, focusing on defeating terrorist threats, addressing contemporary mission demands, and satisfying current and emergent operational priorities.

After the Deepwater contract was awarded in 2002, several independent organizations such as the Brookings Institution and RAND identified shortcomings in the Deepwater solution, and recommended that the Coast Guard investigate how to correct them. Further, since the original performance specification for the Deepwater contract did not include the Coast Guard's role as the lead agency for Maritime Homeland security, the Coast Guard recognized a need to re-evaluate its mission performance goals to incorporate its post-9/11 responsibilities into the Deepwater project. As a result, in early July 2003, the Commandant directed that an internal Coast Guard study be conducted to analyze operational capability and force structure gaps and the impact these gaps have on mission performance. This process was known as the Integrated Deepwater System Performance Gap Analysis (PGA). The PGA identified several gaps preventing the Deepwater system from delivering the Coast Guard's post-9/11 mission performance targets. By translating the performance requirements of the post-9/11 security environment into revised system performance specifications, the Coast Guard identified how to best modify the original Deepwater plan to ensure the contract continues to deliver value for the taxpayer and security for the nation.

The following functional requirements, which make up the revised Deepwater implementation plan, are derived from the PGA and were outlined in a revised Deepwater Mission Need Statement approved by DHS Acquisition Executive in January 2005. These requirements address Coast Guard readiness to meet Ports, Waterways, and Coastal Security (PWCS), counter-terrorism, and other national security missions, as well as traditional Coast Guard missions such as Search and Rescue and protection of Living Marine Resources:

1. Network-Centric Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) Interoperability: Provides capability improvements to ***harness the power of an interoperable network*** to improve performance in all mission areas—enabling distributed operations and the sharing of information quickly and seamlessly across a wide range of units. Improved intelligence capabilities are true force multipliers in acquiring higher levels of actionable intelligence as a part of maritime domain awareness to reduce risk. Greater access to and more timely sharing of intelligence information allows commanders to make better informed operational decisions, manage risk wisely, and employ forces more effectively with vastly improved results. Also provides more capable and interoperable Deepwater C4ISR systems which form the basis for maintaining a Common Operating Picture (COP) to create and disseminate information needed to perform time-critical missions more effectively, enable sound decision making and manage joint operations. A common operational picture, shared by units and agencies, is fundamental to acquiring needed levels of Maritime Domain Awareness (MDA).

2. Maritime Security Capabilities: Deploys improved capabilities on select cutters (e.g. greater speed, larger flight deck, automated weapons systems, weapons of mass destruction survivability) essential to higher levels of maritime homeland security during a terrorist attack, opposed boarding, or operations in a chemical, biological, radiological (CBR) environment. Enables these Coast Guard units to respond forcefully and safely operate in the face of high-risk threats, including weapons of mass destruction.

3. Helicopter Airborne Use of Force and Vertical Insertion and Delivery: Allows Coast Guard helicopters the capability to provide warning and/or disabling fire at sea and in ports, waterways, and coastal regions—allowing the Coast Guard to push out U.S. borders and extend effective radius of action for all cutters. Helicopters will likely be the primary response force if a terrorist attack occurs in a port as well as an effective deterrent force. Allows Coast Guard Deepwater helicopters to deploy, support, deliver, and recover boarding teams safely and more effectively from a shore station or cutter. This capability also improves the ability to deploy marine-safety inspectors, and to board and take control of non-compliant vessels.

4. Fixed Wing Aircraft: Improves Coast Guard's long-range surveillance to support MDA and reduces maritime patrol aircraft hours shortfall. Enables Coast Guard-controlled air transport to respond within 6 hours for deployment of Maritime Safety and Security Teams and 12 hours for National Strike Force Teams with all their associated response equipment.

5. Anti-Terrorism/Force Protection: Provides select Deepwater assets with all-weather self-defense and the ability to protect high value assets. Provides assets with the capability to engage terrorists and ensure survivability and continued mission capability.

6. Chemical, Biological, Radiological (CBR) Detection and Defense: Provides improved capabilities on assets for CBR and nuclear/explosive threat response. CBR capabilities are essential to survival and continued operations in the face of an ever-present threat of a CBR attack involving a weapon of mass destruction in the United States or during a major theater war. CBR detection and defense capabilities will enable select Deepwater cutters to detect CBR agents and operate in contaminated environments for up to 36 hours to maintain presence and perform command-and-control missions.

As a performance-based contract, the goal of the Deepwater program is to ensure the Coast Guard is able to achieve measurable results in each of its primary mission areas. That is to say, while the Coast Guard anticipates that the enhancements discussed above will allow it to achieve significant improvement in its mission performance, the Deepwater contractor will ultimately be held responsible for delivering Coast Guard performance, not just specific assets. Given the degree to which the original Deepwater plan requires revision, the potential future variability of the nation's security requirements, and the impossibility of predicting future threats and risks with absolute certainty, the Deepwater force mix is described as a range of assets required to meet long term maritime safety and security goals.

This revised Deepwater implementation plan illustrates the President's commitment to acquire improved, critically needed capabilities and is fundamental to deliver required levels of operational excellence, while providing for the security of the nation and the safety of our citizens. The Deepwater Program is an essential element of the DHS strategy to reduce the future risk of a terrorist event in the homeland.

To achieve this more secure future, the revised Deepwater implementation plan updates the original plan by:

a. Modifying the original assets that would have been delivered by the Deepwater project to incorporate the post-9/11 capabilities discussed above;
b. Retaining and upgrading aviation legacy assets (C-130s, HH-60s, HH65s) as part of the final asset mix; and
c. Advancing the delivery of the Fast Response Cutter and Offshore Patrol Cutter.

As specified in the FY 2005 Department of Homeland Security Appropriations Act (H.R. 4567), this report provides the Department of Homeland Security's plan for revising the Deepwater acquisition baseline by organizing the information requested into the following attachments to this executive summary:

1. Graphic Description and Timeline of the Updated Deepwater Baseline
2. Deepwater Asset Description
3. FY 2006 Budget Request Discussion