

STATEMENT FOR THE RECORD

**Mr. Philip A. Teel, Vice Chairman, Board of Directors
Integrated Coast Guard Systems (ICGS)
1530 Wilson Blvd., Suite 210
Arlington, VA 22209**

and

**President, Northrop Grumman Ship Systems, Inc.
1000 Jerry St. Pe` Highway
Pascagoula, Mississippi 39568**

Tel: 228-935-7447

**Testimony Before The
House Committee on Oversight and Government Reform**

THURSDAY, FEBRUARY 8, 2007

10:00 AM

2154 RHOB COMMITTEE ROOM

Good morning, Mr. Chairman, Ranking Member Davis, and distinguished members of the Committee.

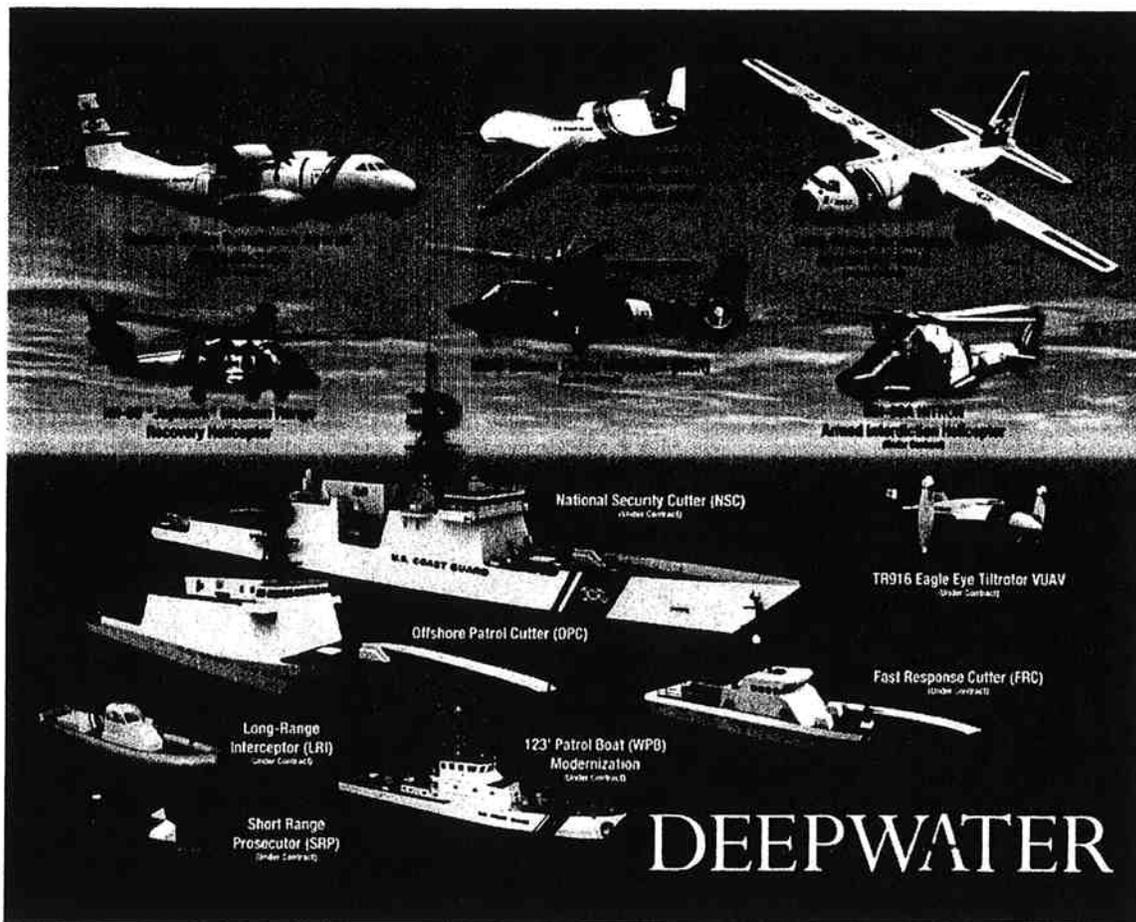
On behalf of Integrated Coast Guard Systems (ICGS), Northrop Grumman Ship Systems (NGSS)¹, and all of the men and women working in support of the Integrated Deepwater Program, thank you for the opportunity to appear before you today. The following statement contains information that I am submitting based on my current knowledge, information and belief.

The Deepwater Program began with the award of three Phase I concept exploration and development contracts in November 1998 for trade studies, and conceptual and functional designs of surface and air platforms, communications equipment, support systems, and the development of an implementation plan for deployment of new assets and disposal of legacy assets. The Phase I effort culminated with the preparation of a Phase II proposal. The 2001 Deepwater Phase II Request for Proposal (RFP) built on the prior concept development and sought a performance-based systems engineering approach applied to a "system of systems" capable of fulfilling all Coast Guard Deepwater missions. The RFP emphasized Deepwater-wide mission operational effectiveness and total ownership cost over individual asset performance.

¹ All references to NGSS in this testimony relate to the roles and responsibilities of NGSS within the ICGS structure.

ICGS developed its Deepwater proposal on the basis of a system-of-systems approach which represented the culmination of over four years of working with the Coast Guard. The ICGS solution balances the interrelated Program goals of maximizing operational effectiveness and minimizing total ownership cost. ICGS proposed an implementation plan to produce significant benefits in the five-year base Contract period over legacy systems. This 20-year implementation plan will provide increased and more cost efficient mission hours for the Coast Guard over its existing systems.

As part of its winning proposal and Coast Guard-approved system of systems analysis, ICGS submitted a planned asset mix to be delivered over the anticipated 20 year program:



ICGS is presently executing a series of contracts to meet this objective. While the capabilities of the individual assets have evolved in light of new post 9/11 requirements, the basic asset structure of the IDS program remains intact.

In June 2002, the Coast Guard selected ICGS to manage the Integrated Deepwater System following a vigorous competitive acquisition process and ICGS was organized accordingly to carry out its Deepwater management duties. ICGS is a joint venture comprised of NGSS and Lockheed Martin Corporation. ICGS is governed by a Board of Directors with three directors from each member and three independent director positions. ICGS personnel remain employees of either Northrop Grumman or Lockheed Martin; ICGS has no employees of its own.

ICGS is a business structure designed to fulfill the objectives of an innovative Coast Guard acquisition. As the Deepwater competition confirmed, there is no single contractor possessing the necessary expertise and systems integration capability for all four program domains. The ICGS structure provides the Coast Guard with direct access to NGSS and Lockheed Martin, a teaming approach that allows the Coast Guard access to the full support of two of our nation's leading defense and homeland security contractors. At the same time, through ICGS the Coast Guard is provided with a single point of contact to address all Deepwater challenges in an affordable, efficient and cost effective manner. The ICGS approach also reduces the cost structure normally associated with traditional prime contractor/subcontractor arrangements, thereby permitting more program resources to be devoted to the procurement of Deepwater assets.

The Deepwater System consists of five Domains: Surface, Aviation, Command, Control, Communications and Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), Integrated Logistics Support and System of Systems. At full implementation, the Surface Domain will comprise three classes of new cutters and their associated small boats, and upgraded legacy cutters. The Aviation Domain will comprise a new fixed-wing manned aircraft fleet, a combination of new and upgraded helicopters, and both cutter-based and land-based unmanned air vehicles. All of these highly capable assets will be linked with state-of-the-art C4ISR systems, and will be supported by an integrated logistics regime. This systems acquisition approach ensures interoperability across all Domains and avoids unnecessary redundancies within the system.

ICGS serves as the systems integrator for the Deepwater Program. As systems integrator, ICGS: (1) plans, coordinates and executes all Program asset procurements within a system of systems implementation plan; (2) ensures overall integration (program management, systems engineering, production and operations, and life cycle support) within the Program; (3) oversees systems engineering, system architecture development, operational effectiveness analysis, total ownership cost management, and enterprise level requirements management; and (4) complements Coast Guard capabilities while providing a depth of core integration experts drawn from NGSS and Lockheed Martin. Of course, these management responsibilities require a continuous interface between ICGS and the Coast Guard.

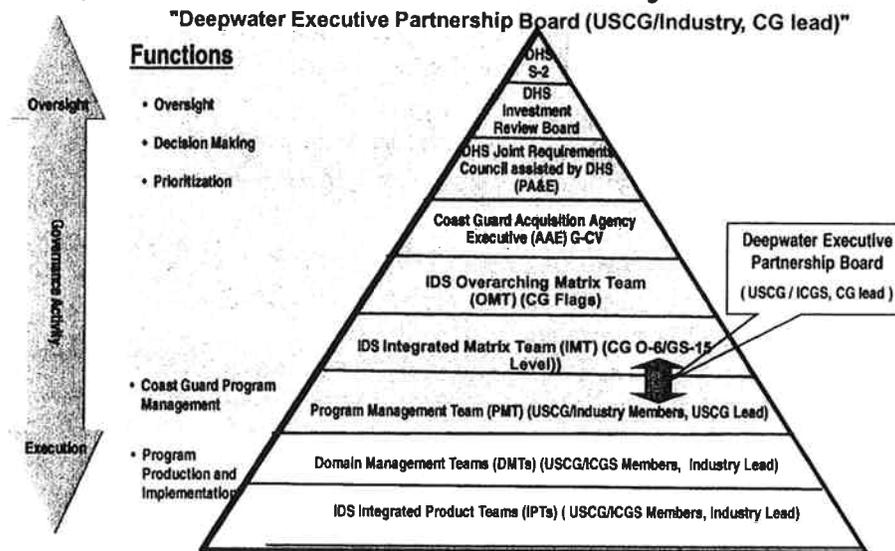
ICGS and the Coast Guard have established a day-to-day management structure consisting of Integrated Product Teams (IPT), Domain Management Teams (DMT), and a Program Management Team (PMT). These teams include government and industry

members, who are charged--both individually and collectively--with collaborative achievement of documented team objectives outlined in formally approved charters. Additional Coast Guard oversight is provided above the PMT by the Integrated Matrix Team (IMT), Overarching Matrix Team (OMT), and Agency Acquisition Executive (AAE). The chartering authority, individual structure, and team-level roles and responsibilities for each are summarized below:

- The 14 IPTs are formally chartered by and report programmatically to their respective DMTs. IPTs are comprised of mid-level Coast Guard and ICGS personnel and possess joint responsibility for IPT-level management, administration, and execution of IPT-specific work. IPTs participate in technical and design discussions in a collaborative effort to ensure that developing assets meet contract objectives. Except for the Test and Evaluation IPT chaired by the Coast Guard, all other IPTs are led by an industry member.
- The five DMTs are formally chartered by and report programmatically to the PMT. DMTs are composed of mid-to-senior level Coast Guard and ICGS program management, systems integration, engineering, and contract administration personnel and possess joint responsibility for domain-level management, administration, and oversight of domain-specific work. The DMTs are led by an industry member.
- The PMT is formally chartered by and reports programmatically to the Deepwater Executive Partnership Board, which includes the Program Executive Officer (PEO), Deputy PEO and ICGS President and Executive Vice President. The PMT consists of senior Coast Guard and ICGS program management and contract administration personnel and is jointly responsible for management, administration, and execution of the Program. The PMT is led by a Coast Guard member.
- The IMT, OMT and AAE oversee the PMT and provide successive levels for Coast Guard review and approval of significant programmatic decisions. These teams are led by O-6 level personnel/GS-15 level personnel, Flag Officers/SES level personnel, and the Vice Commandant, respectively, and meet weekly or as required to address industry and Coast Guard related issues. The AAE issues programmatic decisions to the PEO, which are converted into contract language and provided as direction to ICGS.

The Deepwater management structure is depicted on Page 5 below:

Deepwater CG Governance Hierarchy



This hierarchical approach ensures active Coast Guard/ICGS involvement in all aspects of program management and execution.

ICGS and the Coast Guard have entered into a partnering agreement which further defines the IPT process. Under this agreement, IPTs are (with one exception) chaired by either Northrop Grumman or Lockheed Martin subject matter experts and decision making is consensus based. The Test & Evaluation IPT, led by Coast Guard personnel, monitors the test plan supporting asset delivery and the verification process designed to ensure that the performance specifications are met. It is within this IPT structure that ICGS and the Coast Guard work together in executing and overseeing the Deepwater development effort.

It is important to note that IPTs cannot make decisions impacting schedule, cost or Contract requirements; these decisions at all times reside with the Coast Guard. Moreover, if any IPT member believes that a material issue is not being resolved in the Coast Guard's best interest, he or she may raise the issue through a review process. The final authority on issues is the Coast Guard's Senior Acquisition Executive (Vice Commandant).

In testimony before the House Subcommittee on Coast Guard and Maritime Transportation, Commandant Allen said that he has directed Coast Guard personnel to raise all unresolved technical issues with the Coast Guard technical authority. This will further ensure more proactive Coast Guard participation in decision making at every level. ICGS fully concurs with and supports this approach.

As part of the IPT process, ICGS and the Coast Guard engage in programmatic and design reviews for each asset, including Preliminary Design Reviews, Critical Design

Reviews and Production Readiness Reviews. ICGS and the Coast Guard also work together on "technical scoping reviews" prior to the issuance of Contract DTOs. These reviews include a checklist on which the Coast Guard and ICGS agree regarding the DTO statement of work, contract data requirements lists and other requirements. These reviews minimize confusion and reduce the potential for performance ambiguities arising after issuance of a DTO.

Despite the collaborative nature of the design review process, the Coast Guard remains the decision making and contracting authority, and has retained the traditional contract management functions, including the right to issue unilateral change orders, to stop or terminate work, to order or not order assets and supplies, and to accept or reject work.

When technical or cost issues have arisen, ICGS has worked diligently with the Coast Guard to resolve these issues as quickly and comprehensively as possible. Joint ICGS and Coast Guard technical discussions have resulted in numerous technical enhancements and improvements to the assets. For example, through the IPT and design review process, NSC enhancements were added including upgraded steel, additional Hovgaard bulkheads (for longitudinal strengthening), thicker steel and a design change to the fashion plates and re-entrant corners. These enhancements are contained in the NSC Bertholf design and are therefore already built into the ship.

There have been many technical changes to the assets in the wake of September 11. For example, post 9/11 requirements changes have resulted in significant capability improvements to the NSC, including an extended flight deck, chemical, biological and radiological protection, and a 26% crew accommodation and berthing expansion to accommodate an increased operational tempo. As a consequence, the ship's light weight tonnage increased by 40%, HVAC and power generation capacity increased by 160% and 23% respectively, and the number of mast antennae from 11 to 36. On the FRC, post 9/11 requirements resulted in a ship design that is non-traditional for a patrol boat. Indeed, no other existing patrol boat in the world meets these requirements. A composite hull form has been proposed to meet this demanding set of requirements with a potential to save over \$1B in lifecycle cost. Post 9/11 requirements changes and the effects of Hurricane Katrina comprise the bulk of cost growth for the Deepwater surface assets.

Currently, ICGS is working closely with the Coast Guard to resolve technical questions related to cause of the buckling and hull deformation on the 123 converted patrol boats. The Coast Guard and ICGS have performed finite element analyses, strain gauge testing, and modeling, and are investigating potential and multiple contributing factors to the structural condition of the boats. ICGS is also working with the Coast Guard to come to a technical resolution of the approach to calculating the fatigue life of the NSC. The Coast Guard and contractor technical experts are engaged in a meaningful dialogue which will lead to final agreement on fatigue enhancements.

ICGS takes very seriously the oversight responsibilities of the Coast Guard, the Government Accountability Office (GAO), and the Department of Homeland Security (DHS). In response to concerns raised by the GAO, ICGS has gone beyond contract management requirements and in December 2004 established Earned Value Management

System (EVMS) metrics to ensure the quality of EVMS data. Specifically, on a monthly basis, the Coast Guard provides an objective assessment of the EVMS data quality by measuring 22 factors in the areas of baseline management (including integrated baseline review action items), variance analysis, administration (timeliness, errors), and Integrated Master Schedule (IMS). Government reviewers have consistently rated the EVMS and IMS products as outstanding.

As part of the EVMS process, integrated baseline reviews (IBRs) are conducted following every significant contract award with the Coast Guard by ICGS and the first tier contractors. IBRs establish a mutual understanding of the project performance measurement baseline and assess program risk against the baseline. This critical review verifies earned value methods and establishes detailed schedules and budgets for the work being performed. The IBR process is intended to ensure an additional level of Coast Guard programmatic oversight of ICGS and the tier-one contractors.

ICGS, in conjunction with the Coast Guard IDS team, has also developed quantifiable metrics to measure and grade IPTs. ICGS has implemented a Program Maturity Approach to facilitate the establishment, training, and continuous evaluation of the multidisciplinary IPTs tasked with development and delivery of a large number of highly complex, inter-related system-level assets. To this end, the Deepwater Program Maturity Approach was developed at contract inception and has been continuously upgraded based on three fundamental principles: (1) definition of key collaborative behaviors and practices, (2) periodic measurement and evaluation, and 3) overall team maturity.

In addition to GAO audits, ICGS and its member companies have supported and participated in reviews by the Defense Acquisition University, and the Coast Guard Program Management Team. In connection with these audits and reviews, ICGS routinely provided support for audit team site visits to ICGS facilities, management and technical staff meetings with audit teams, briefings and updates to auditors, and support for multiple Coast Guard and independent ICGS data call responses. In addition, ICGS has provided access to and training on the ICGS electronic document system and numerous files and documents.

Consistent with our participation in these audits, and consistent with the Generally Accepted Government Auditing Standards (GAGAS), ICGS offered to facilitate the Department of Homeland Security Office of Inspector General's (OIG) audit in order to make personnel available for interviews in a manner consistent with standard audit practices and procedures. Not knowing the subject of the audit or whether the audit related to or focused on ICGS or its member companies, ICGS requested in its February 17, 2006 letter that the OIG clarify the purpose and scope of the audit and, depending on its nature, to allow management or legal representation at interviews. The OIG neither acknowledged these requests nor sought to discuss how ICGS might facilitate their audit. Regardless, ICGS remains committed to supporting the Coast Guard, this Committee and other agencies in their Deepwater oversight efforts.

Since Contract award, there has been an extraordinary degree of transparency in program management and execution between ICGS and the Coast Guard. ICGS remains

committed at the highest levels to continuing this cooperative approach. Recently, Coast Guard Commandant Thad Allen met with Northrop Grumman CEO Ronald Sugar and Lockheed Martin CEO Robert Stevens in the first of a planned series of meetings to discuss near and long-term objectives and goals for the Deepwater Program. Their discussions focused on recent initiatives to strengthen program management and oversight, ways to capitalize on proven Deepwater successes and defining a way forward in resolving outstanding challenges. As a result of the meeting, ICGS and the Coast Guard are renewing their commitment to provide executive level Program oversight at all times, and specific direction when warranted. To that end, senior executive leadership in each of our organizations will meet regularly to be informed of progress on the Program to ensure our collective success in recapitalizing the Coast Guard.

Thank you for this opportunity to discuss ICGS management and oversight on the Deepwater Program.

This is the end of my statement. I welcome your questions.