

# **Executive Summary**

## **Naval Research and Development**

It is clear that the Department of the Navy's (DON) research and development (R&D) budget will be under considerable stress for the foreseeable future, as the defense budget continues to experience reductions and re-prioritizations. In addition, there is a continuing requirement to increase the portion of the Navy's R&D work that is conducted by the private sector. The confluence of these forces dictates a change to the DON's in-house R&D infrastructure. To address these issues, the Assistant Secretary of the Navy (Research, Development and Acquisition) [ASN(RD&A)] tasked the Naval Research Advisory Committee (NRAC) to conduct an assessment of the facilities, functions, processes and organizations of the Naval R&D infrastructure. The NRAC Panel on Naval R&D was formed to respond to the tasking.

The panel met in three formal sessions to receive extensive briefings from Department of Defense and DON sources; interspersed with sub-panel team visits to the four Naval Warfare Centers and their respective laboratories to collect pertinent information related to the panel's tasking. The emphasis in this data collection was on relevance to the Naval customer, critical technology interests, facilities, redundancy, organizational and personnel issues, interaction with industry and academia, critical problems, and ability to meet the needs of the DON in the 21st century.

The NRAC report is organized into four subject areas: historical perspective, critical R&D resources, R&D organization, and the R&D process.

Following an analysis of Naval Research and Development, weaknesses were identified in two areas: R&D organization, and the R&D process. Organizational weaknesses included deficiencies in structure, personnel policies, financial execution and planning. Process weaknesses included weak integration between R&D and Naval doctrine and a cumbersome requirements process that fails to address prioritization, or conduct performance, cost and risk assessments, and does not adequately address affordability issues.

The report recommends protection and retention of critical DON unique resources, such as one-of-a-kind facilities to test and evaluate unique Navy products; unique high value, irreplaceable facilities and unique geographical locations and ranges; unique capabilities that provide rapid responsiveness to threats; and personnel who represent a unique source of corporate knowledge. Further, the report recommends that the DON stand up a single Warfare Systems Command that reports directly to the ASN(RD&A) and Chief of Naval Operations, in lieu of the current individual systems commands, creating a central focal point and advocate to address the long-term R&D/Material needs of the Navy.