

Deepwater Capability Replacement Project

principal advantage of the Deepwater Project is its system of systems approach that provides the ability to expand the scope of sea control well beyond the sight distance of the cutters' bridge. Currently, nearly all Coast Guard at-sea operations must be conducted within a relatively short distance of the Coast Guard asset on scene. Enhanced sensors, communications and command-and-control equipment will enable commanding officers to expand their tactical control well beyond the horizon in order to achieve total maritime situational awareness. This ability to influence events over the horizon may result from using small watercraft capable of delivering enforcement personnel across long distances at high speeds, unmanned aerial vehicles, or even tilt-rotor aircraft capable of operating from current and future cutters.

Improved communications will ensure maximum information flow between all assets and personnel and will enhance end-game effectiveness. Every sensor will become a force multiplier for every other unit present. At-sea tactical control will be enhanced by digitally linked platforms, more capable sensors, and assets capable of projecting their sphere of influence well beyond human sight range. The days are numbered when a commanding officer's knowledge of a dynamic situation is limited to what the searchlights may illuminate or what a busy boarding team has time to report over the radio.

However enticing this future might seem, the Coast Guard must first get past its current predicament of an aging inventory of assets that are fast approaching, and in some instances have long since surpassed, their projected service lives. In fact, the nation's cutter fleet is older than all but two of the world's 42 deepwater naval and coast guard fleets. America's cutters lack adequate speed, endurance and systems to accomplish their tasks in the most cost-effective and safe manner. Aircraft and cutters have poor sensors and only a limited night operations capability. Systems for communicating between Coast Guard units (as well as for communicating with the forces of other Services or agencies) are inadequate. Likewise, antiquated technology is increasing the Coast Guard's operating and maintenance costs.

Engines whose production lines closed in the early 1970s, spare parts that must be manufactured each time they are needed, and a host of other problems associated



The CGC Mellon (WHEC 717), a 378-foot high endurance cutter, patrols the waters off Kodiak, Alaska. The Mellon is the third of the Coast Guard's Hamilton class high endurance cutters. It was commissioned in 1968 at Avondale Shipyards in New Orleans. The Mellon was named after Andrew W. Mellon, the 49th Secretary of the Treasury, who served during the administration of President Herbert Hoover. The Mellon's first homeport for many years was Honolulu, but in the early '90s it transferred to Seattle.

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with aging and labor-intensive assets only begin to illuminate the true scope of the Services' growing dilemma. Thus, there is a compelling need to modernize and enhance these assets and capabilities to ensure that national maritime security and national military requirements can be satisfied and that the Services' core mission areas can be supported.

The Solution: The Deepwater Project

The Deepwater Project will design, engineer and acquire an integrated system of systems including a wide range of surface, air, command-and-control and communications assets.

For more than two centuries, the military, multi-mission, maritime Coast Guard has protected American lives, property and interests in the nation's inland waterways, coastal waters, and on the high seas. In recent years, the Service has modernized its patrol boats and near-shore assets. However, to carry out its daunting deepwater missions effectively and efficiently into the 21st century, the Service needs modern and capable cutters, aircraft, and systems tailored for the much more demanding deepwater operating environment. For this reason, the Deepwater Capability Replacement Project — the Deepwater Project — has assumed a central role in planning, programming and budgeting for the Coast Guard of the 21st century.

The Coast Guard's deepwater missions typically