

All photos courtesy of the United States Coast Guard.

Maritime Domain Awareness: The Deepwater C4ISR Contribution

The Deepwater command & control systems (C4ISR) are essential to developing improved maritime domain awareness – meeting the information needs of operational decision makers. This network-centric system is being designed to ensure that the Coast Guard will have a common picture and interoperability with the forces and agencies of the Departments of Defense and Homeland Security and a wide range of other federal, state, and local agencies.



Operational effectiveness enhanced by a common maritime operational picture.

- Shared tracks and real-time data streams.
- On-line intelligence.
- Robust and seamless connectivity and continuous coordination.
- Stand-alone capability.
- Supplemented by active and passive sensors.

- Expanded area of surveillance and detection areas.
- Improved communications with all agencies and merchant shipping.
- Fully interoperable with Rescue 21, for shoreside and off-shore connectivity.

The Coast Guard – a crucial element in preserving national security ... in providing search and rescue ... in the interdiction of alien migrants and illegal drugs ... and in protecting our marine environment and resources.

Never before has the Coast Guard been so essential to the safety of so many.

And now, with the Integrated Deepwater System Program, the Coast Guard will have the tools necessary for meeting the mission needs of today ... and tomorrow.

Integrated Deepwater System – An Introduction

The Integrated Deepwater System Program is supporting the Coast Guard as it revitalizes or replaces aging and technologically obsolete cutters and aircraft, command and control systems and logistics infrastructure. The Deepwater contract was awarded to Integrated Coast Guard Systems (ICGS), a joint venture of Lockheed Martin and Northrop Grumman, in late June 2002.

Deepwater Missions

- Homeland Security
- Search and Rescue
- Alien Migrant Interdiction
- Drug Interdiction
- Fisheries Protection
- Marine Environmental Protection

Current Systems

- 90+ Ships
- 200+ Aircraft
- Associated C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) Systems
- Shoreside Command & Control (C2)
- Logistics Support Infrastructure

Future IDS Assets (As Proposed)

- 91 Ships (National Security Cutters, Fast Response Cutters, Off-Shore Patrol Cutters)
- 124 Boats (Long Range Interceptors, Short Range Prosecutors)

- 49 Modified 123' Patrol Boats
- 244 Aircraft (C130J Hercules, Vertical Recovery & Surveillance Helicopters, Vertical Take-Off and Landing Unmanned Air Vehicles, Maritime Patrol Aircraft, Multi-Mission Cutter Helicopters, High Altitude Endurance – Unmanned Air Vehicle)
- Enterprise Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance
- Integrated Performance-Based Logistics

IDS gives the Coast Guard a **much-needed increase in Operational Effectiveness:**

- **More capable** C4ISR architecture, surface and aviation assets
- **Greater capacity** due to additional available mission hours
- **Improved readiness** over existing legacy systems
- **More efficient support** through an integrated logistics system

Integrated Deepwater System and Homeland Security

President Bush's National Homeland Security Strategy seeks to **prevent** terrorist attacks within the United States, **reduce** the United States' vulnerability to terrorism, and **minimize** the damage and recovery effort from attacks that might occur.

For the Coast Guard, the Integrated Deepwater System (IDS) Program is the key enabler to accomplish each of these three objectives. Already a transformational approach at its inception, the Integrated Deepwater System is increasingly demonstrating that the program is essential and central to the Coast Guard's layered defense strategy. Through enhancements gained under IDS, the Coast Guard will be better positioned to push out our borders and improve intergovernmental law enforcement coordination – all as the Coast Guard's men and women are increasingly called upon to stand guard over America's critical infrastructure.

The U.S. Coast Guard is the lead federal agency for maritime homeland security.

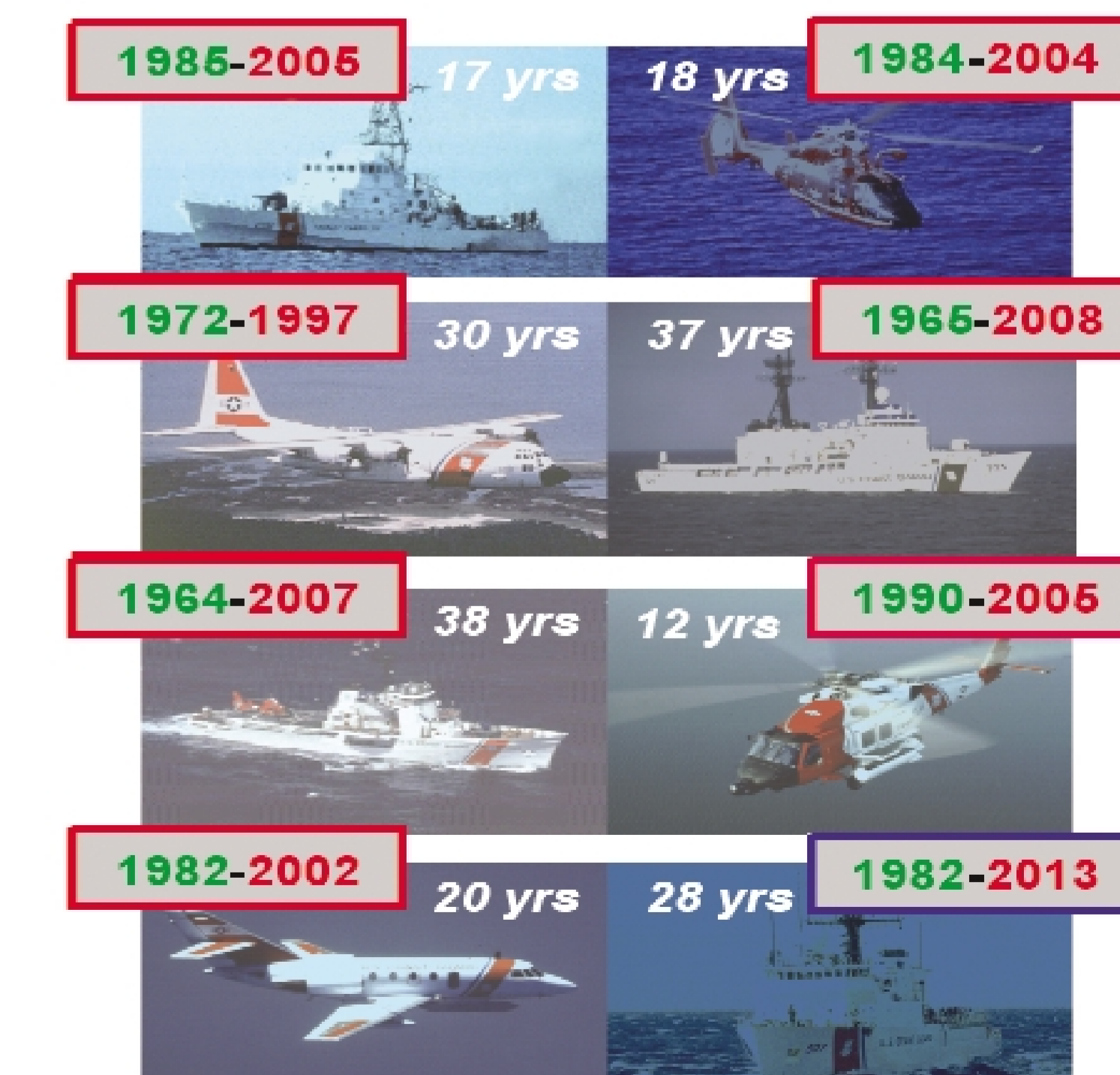
FACT: Over 70% of the U.S. population resides within 100 miles of our marine borders. Over 90% of America's economy moves through the U.S. Marine Transportation System (MTS). 16,000 containers pass through U.S. ports every day. Over 6 million passengers travel onboard cruise vessels every year.

FACT: CG Operations have been steadily increasing, escalating demands placed on existing assets. Law enforcement sightings, boardings and violations have increased from **22,600 in FY 2000**, to **40,730 in FY 2001** and **44,273 in FY 2002**.

FACT: The Maritime Transportation Security Act of 2002 grants new authority and responsibility by extending CG jurisdiction over foreign-flagged ships from three to 12 miles, increasing pre-arrival notice from 24 to 96 hours, and mandating 300+ port security assessments, among others – this is in addition to traditional mission requirements. The CG Optempo has increased dramatically.

Current Coast Guard Capabilities

- Year First Commissioned
- Expiration of Planned Service Life





"We have a plan to beef up the Coast Guard, to modernize her ships, to make sure the Coast Guard is available around all the coasts of the country to protect the homeland."

– President George W. Bush, February 27, 2002

"The Budget for Fiscal Year 2004 will continue to support the recapitalization of the U.S. Coast Guard's aging fleet, as well as targeted improvements in the areas of marine domain awareness, command and control systems, and shoreside facilities."

– Excerpt from the President's *National Strategy for Homeland Security*, July 2002

"The Integrated Deepwater System is central to transformation. It will change the way we conduct our missions. It will markedly improve performance in our missions. The Deepwater Program is key to ensuring the Coast Guard can continue to fulfill its missions of safeguarding sovereignty, security and safety in our homeland waters."

– Admiral Thomas H. Collins, February 7, 2003

INTEGRATED COAST GUARD SYSTEMS
DEEPWATER

1530 Wilson Boulevard, Suite 400
Arlington, Virginia 22209
Phone: 571-218-3355 (ICGS InfoLine)
Fax: 571-218-3341

www.ICGSDeepwater.com



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