

# *Introduction to the United States Coast Guard Integrated Deepwater System Program*

*...Now More Critical  
than Ever*



Homeland  
Security

DEEPWATER



# A Deepwater Legacy

Since 1790, the Coast Guard has unfailingly provided vital services and benefits to the United States because of its distinctive blend of humanitarian, law-enforcement, diplomatic, and military capabilities. Deepwater assets defend the nation's sovereignty and national security in America's ports and coastal waters as well as offshore.



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# U. S. Coast Guard Missions

## Homeland Security Missions

- Ports, Waterways and Coastal Security
- Drug interdiction
- Migrant interdiction
- Defense readiness
- Other law enforcement

## Traditional Missions

- Marine safety
- Search and rescue
- Aids to navigation
- Living marine resources (fisheries law enforcement)
- Marine environment protection
- Ice operations

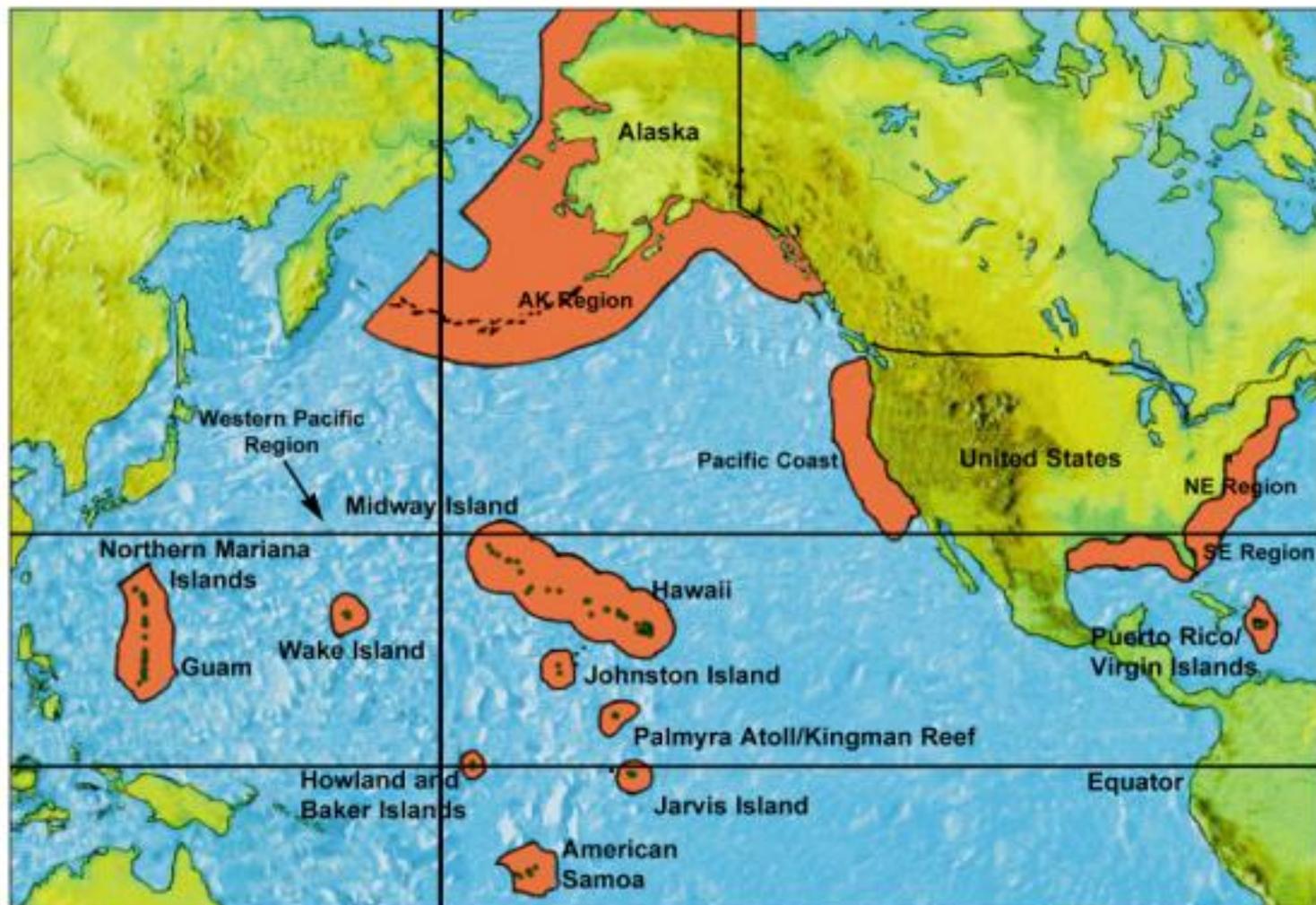


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# Coast Guard Mission Areas



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# Global Mission Execution

Surveillance



Detection



Classification



Identification



Prosecution



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# 21<sup>st</sup> Century Environment



**Impact:** Studies predict an increase in the nation's reliance on the Coast Guard.



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# Homeland Security Strategy

## Comprehensive National Strategy



*Deepwater  
Mission Task  
Sequence*



*Coast Guard  
Maritime Homeland  
Defense Strategy*



*National Strategy  
for Homeland  
Defense*

**Surveil**

**Conduct layered maritime security operations**

**Prevent Terrorist  
Attacks within the  
United States**

**Detect**

**Establish & maintain a baseline level of  
maritime security**

**Strengthen the port security posture**

**Reduce America's  
Vulnerability to  
Terrorism**

**Classify**

**Build & leverage Maritime Domain Awareness**

**Develop required capabilities, improve core  
competencies & recapitalize the CG**

**Identify**

**Organize & sustain a public private sector  
partnership; increase international partnership**

**Minimize the Danger  
and Recover from  
the Attacks that do  
Occur**

**Prosecute**

**Prepare, equip & train forces to transition  
between & conduct HLS & HLD ops**

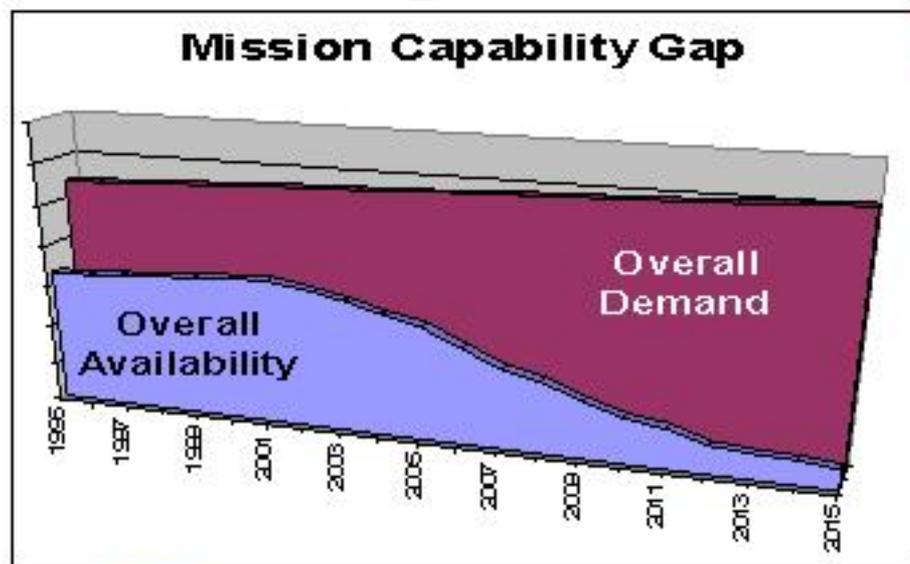


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# Challenges: Widening Gap



## International Trends:

- Doubling World Population
- Declining Fish Stocks
- Post Cold War Regional Conflicts
- Tripling of International Commerce



**Increasing National Demand** - the nation's demand for Coast Guard services already exceeds available resources and demand is projected to increase.



**Decreasing USCG Capability** - the Coast Guard's Deepwater fleets are antiquated and have significant operational limitations.



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# Challenge: Aging Deepwater Assets

1985-2005



1984-2004



The average age of our Deepwater cutters is 29...The Coast Guard fleet of High and Medium Endurance Cutters is older than 37 of the 39 (naval) fleets worldwide...

1972-1997



1965-2008



1964-2007



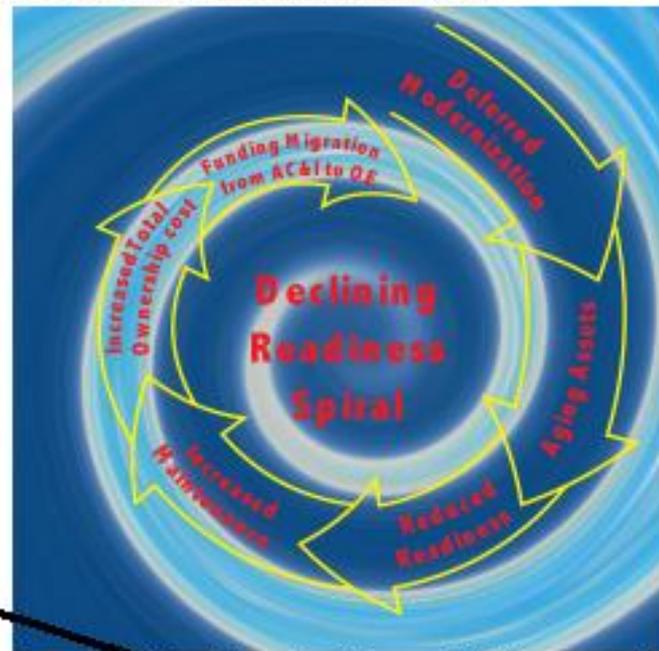
1990-2005



1982-2002



1982-2013



Year First Commissioned

Expiration of Planned Service Life



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# Solution: Integrated Deepwater System

## Performance Based:

- Focus on capabilities not assets

## Acquisition Strategy:

- **Partner** with system integrator
- Acquire **integrated system of** surface, air, C4ISR, and logistics **systems**

## Overarching Objective:

- **Maximize Operational Effectiveness while Minimizing Total Ownership Costs**



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# Our Partner

- **Contract awarded 25 June 2002 to Integrated Coast Guard Systems (ICGS), a joint venture between Lockheed Martin and Northrop Grumman.**



***NORTHROP GRUMMAN***

**ARINC**

**Bell Agusta Aerospace Corp.**

**Bell Helicopter Textron**

**EADS CASA**

**EADS Eurocopter**

**Halter – Bollinger**

**L3 Communications**

***LM Management & Data Systems***

***LM Technology Services***

***M. Rosenblatt & Sons***

***Northrop Grumman Full Service Operations***

***Northrop Grumman IT***

***PROSOFT***

***United Defense, LP***

***People, Performance, and Partnership***



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# System Solution – Network Centric

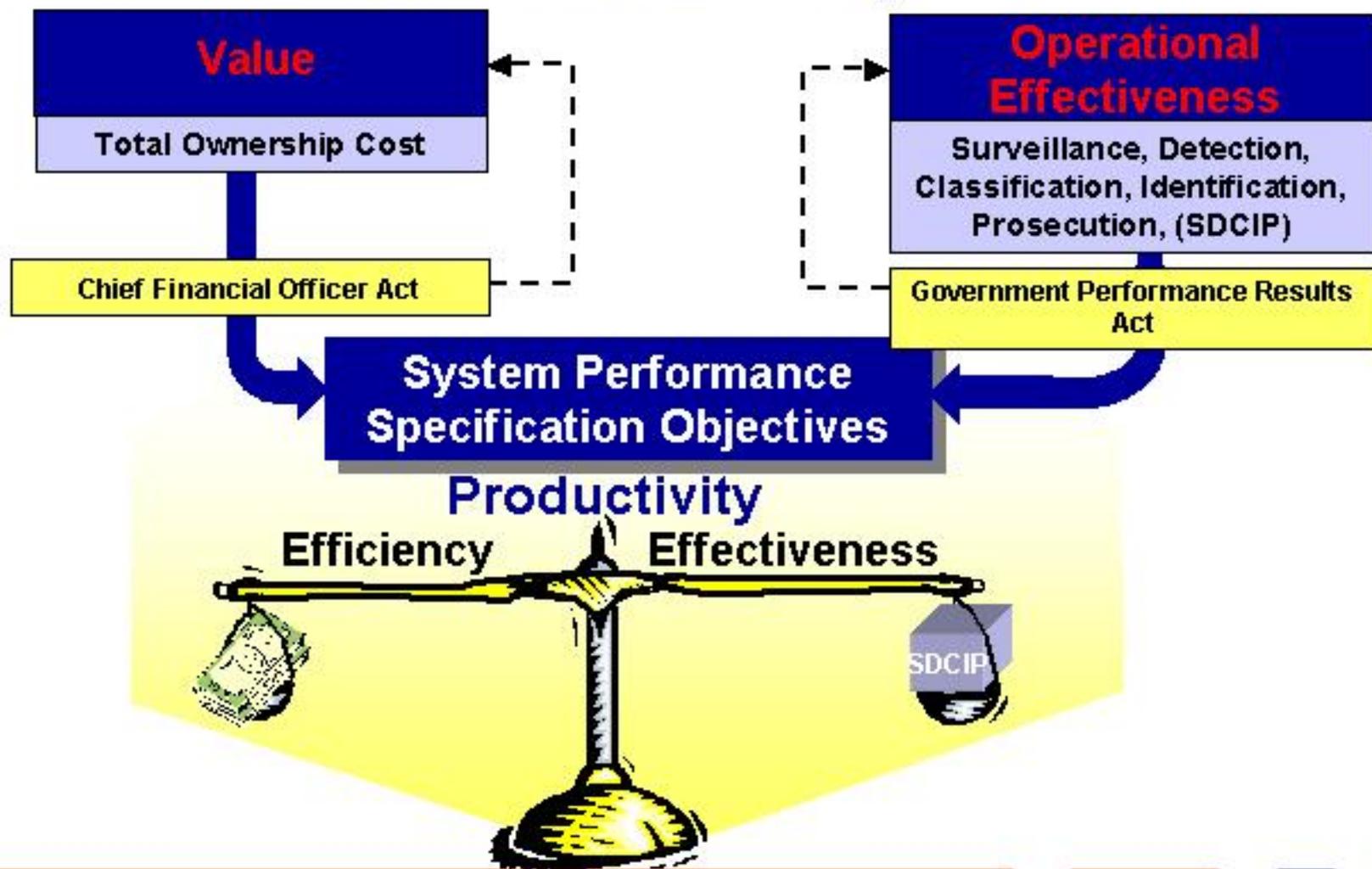


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# Performance Based Acquisition



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# Surface Implementation: Summary



Maritime Security  
Cutter, Large  
(WMSL)



Maritime Security Cutter,  
Medium (WMSM)

- Funding in FY04 and FY05 request provide design and development of WMSL lead ship and building second WMSL.
- Startfab for this first-in-class occurred on 9 September 2004, with the keel laying to follow, in April 2005. The anticipated date of delivery for the lead ship will be the second quarter of 2007.
- Naval Operational Capacity (NOC) and DHS capability incorporated into design.
- Congress funded in FY04 appropriations due to heightened operational tempo of the Coast Guard and the need to meet an expanding mission portfolio with increasingly deteriorating fleet assets.
- The start of the design and final requirements work for the 341-foot medium endurance cutter contract signed June 2004
- Accelerated the launch by approximately three years.
- Potential for synergy with LCS (Littoral Combat Ship).



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# Surface Implementation: Summary



Maritime Patrol Coastal  
(WPC)

- Initiated Concept and Preliminary design to assess composite hull; expectation of reasonable period of time to demonstrate the suitability and performance of the material in a marine environment before the entire class is built of same material.
- As a result of continued deterioration of the material condition of the Island Class 110-foot patrol boats, the decision was made to advance capabilities for the design and development of the WPC to replace existing 110-foot patrol boats.
- Goal is to accelerate WPC delivery in 2006



Maritime Patrol Boat  
(WPB)

- Currently eight cutters under contract; hulls 9-12 are under active discussion.
- MATAGORDA, METOMPKIN, PADRE & ATTU delivered; 4 hulls at Bollinger (VASHON, NUNIVAK, MONHEGAN & MANITOU).
- Challenges faced include the quality of the product, the Short Range Prosecutor, TEMPEST equipment, the hull paint, and the post delivery maintenance availability (PDMA).



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# Air Milestones



HH-65



HH-60J



Maritime Patrol Aircraft (MPA)



Eagle Eye (VUAV)

- Re-engining to restore safe & reliable operations
- ICGS selected Turbomeca as the supplier
- American Eurocopter in negotiation for aircraft Mod kits
- 1<sup>st</sup> new engine was installed in May
- Long-term plan is to convert HH-65 to MCH
- HH-60 Legacy upgrades include new avionics, radio, navigation, and sensor packages.
- 8 MH-68 Stingray leased for assignment to Helicopter Interdiction Tactical Squadron Ten (HITRON)
- Delivery of 2 CASA in early 2006, (mission mods late 2006)
- Ongoing effort to determine optimal mix of HC-130 and the CASA to meet the overall system requirements
- Completed successful PDR
- VUAV Design and development costs funded in FY04; FY05 request includes purchase of two VUAVs
- Current schedule project testing through mid-2007, Initial Operational Capability (IOC) Spring 2008



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# C4ISR Implementation: Summary

- Next generation sensors to detect and identify targets
- Improved access to intelligence data
- Significant communications upgrades to rapidly share tactical and administrative information
- Common Command and Control System for more effective planning and prosecution of Coast Guard missions
- Improvements enable fusion of asset sensor data with intelligence and operational data into a Common Operating Picture that will be shared with other government agencies to achieve Maritime Domain Awareness



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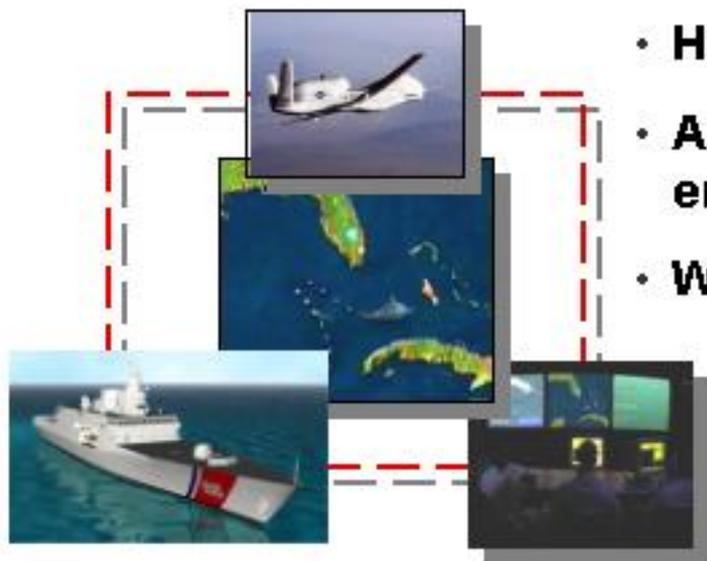
# Logistics Implementation: Summary

- Accomplishment of Depot & Intermediate Level Maintenance on Assets and Equipments using “Open Business Model”
- Assist with Organizational Level Maintenance
- Conduct Logistic, Crewing, and Training, Analyses in Design & production
- Provide post delivery support services
- Continual “Business Process Reviews” to identify and refine processes and linkage with TILA /SL-21
- Implement comprehensive and highly integrated Logistics Information Management System (LIMS)
- User feedback and implement improvement



# People, Performance, Partnership

- 21st-Century network-centric operations
- Highly flexible family of ships
- Aviation assets designed for the maritime environment
- Well suited for Foreign Military Sales possibilities



- Partnering with the USN on Littoral Combat Ship scaleable versions with FMS possibilities
- Result: Affordable interoperability with U.S. DoD/NATO



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# USCG & USN: Required Interoperability



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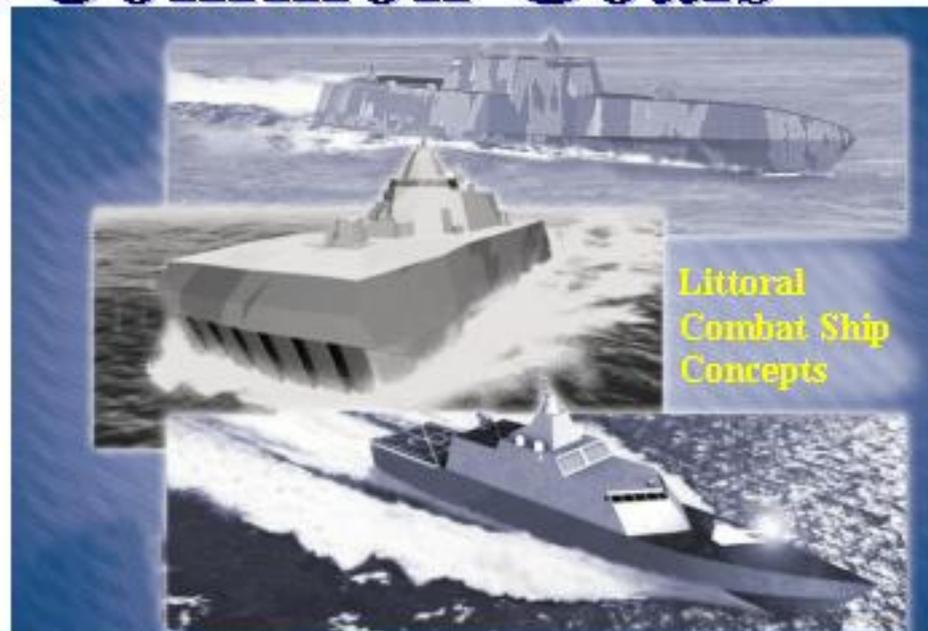
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# Navy/Coast Guard Common Goals

## National Fleet Policy Agreement

Commits the Coast Guard and U.S. Navy to “shared purpose and common effort focused on tailored operational integration of our multimission platforms, meeting the entire spectrum of America’s twenty-first century maritime needs.”



Offshore Patrol Cutter



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# Homeland Security/Defense Continuum



## MDA

Enhancing Maritime Domain  
Awareness through fully  
interoperable network-centric  
architecture



*Integrates the power of  
System of Systems  
with net-centric  
technology*

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## FORCEnet

Integrating sensors from seabed to  
space



*Integrates the power of  
people, sensors, weapons,  
networks, and  
platforms*

**Homeland Defense**

# Why Deepwater?

- **Enables the Coast Guard to**
  - **Maintain credible presence in key maritime regions to deter potential threats to U.S. sovereignty**
  - **Exercise sea control and projection of law enforcement and naval/maritime power should deterrence fail**
- **Provides Nation best national security, military, law enforcement, and search & rescue capability for taxpayer's dollar**
- **Ensures USCG remains best CG in the world – military, multimission, maritime**

**Secures the Homeland**



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# Integrated Deepwater System an Enabler of Maritime Homeland Security!



*"What we need in the maritime domain is similar to what we have in the air defense domain; and that is, fundamentally, we need a maritime NORAD."*

Admiral Clark Chief of Naval Operations March 2002