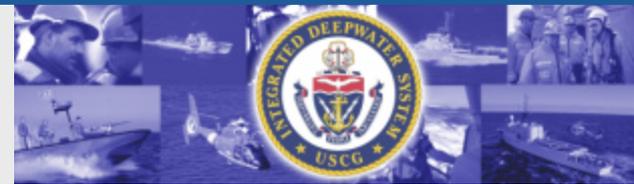


The Road to an Interoperable Coast Guard



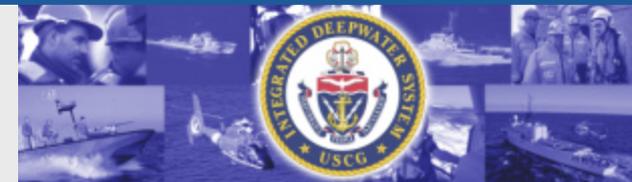
Mr. Gregory L. Giddens
Deputy Program Executive Officer

Agenda



- **The Interoperability Puzzle**
- **An Innovative Acquisition Approach**

Coast Guard Mission Growth



Federally Mandated Deepwater Missions:

Homeland Security

Maritime Law Enforcement

- Drug Interdiction
- General Enforcement of Laws and Treaties
- Alien Migrant Interdiction
- Living Marine Resource Enforcement



Maritime Safety

- Search and Rescue
- International Ice Patrol



Marine Environmental Protection

- Maritime Pollution Enforcement
- Lightering Zone Enforcement
- Foreign Vessel Inspection

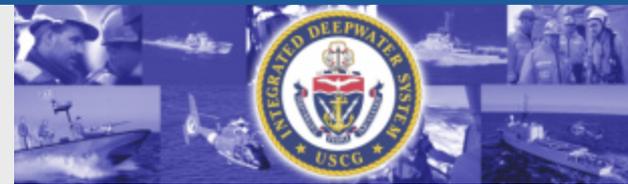


National Defense

- Homeland Security
- General Defense Operations
- Maritime Interception Operation
- Environmental Defense Operations
- Deployed Port Operations, Security & Defense
- Peacetime Military Engagement



Global Trends Will Increase Demand on the Coast Guard

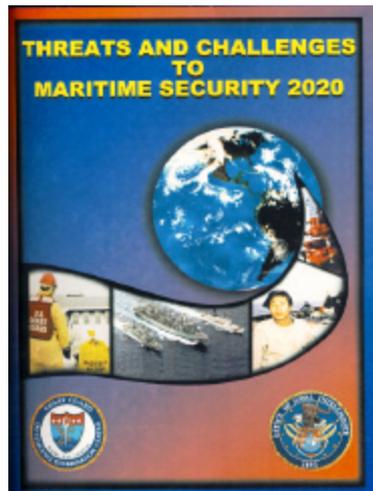
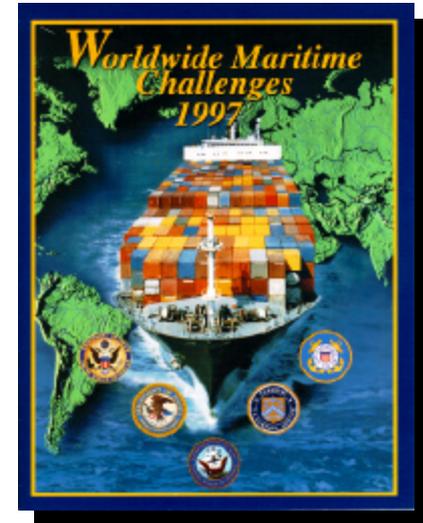


International Trends:

- Regional Conflicts, Terrorism & Drugs
- Doubling World Population
- Declining Fish Stocks
- Tripling of International Commerce

National Trends:

- Homeland Security Focus
- Expanded EEZs'
- New Intelligence Roles

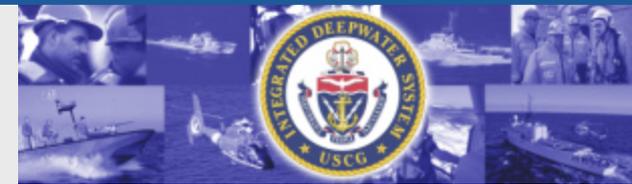


Coast Guard Impact:

- *Studies predict a resulting increase in the nation's reliance on the Coast Guard.*



Asset Block Obsolescence



1985-2005



1984-2004



1972-1997



1965-2008



1964-2007



1990-2005



1982-2002



1982-2013



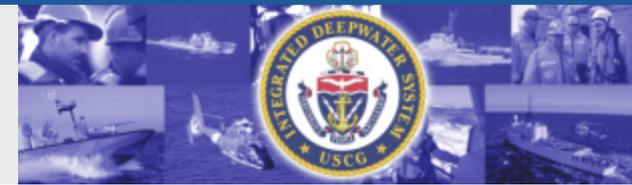
Deepwater Project Scope:

- 91 Cutters
- 209 Aircraft
- C4ISR Systems/Network
- Logistics Infrastructure

Year First
Commissioned

Expiration of Planned
Service Life

Legacy Coast Guard Gaps



Increasing mission demand, inadequate funding

- **Capability Gap** – Decades of unfunded C4ISR requirements
- **Technology Gap** - 30+ year old technology hinders effectiveness & drives up costs
- **Logistics Gap** - Maintenance costs increasing while operational availability decreasing



**SAW ACTION DURING
WWII AND STILL IN USE.**

**QUITE A HERITAGE...
QUITE A PROBLEM!**

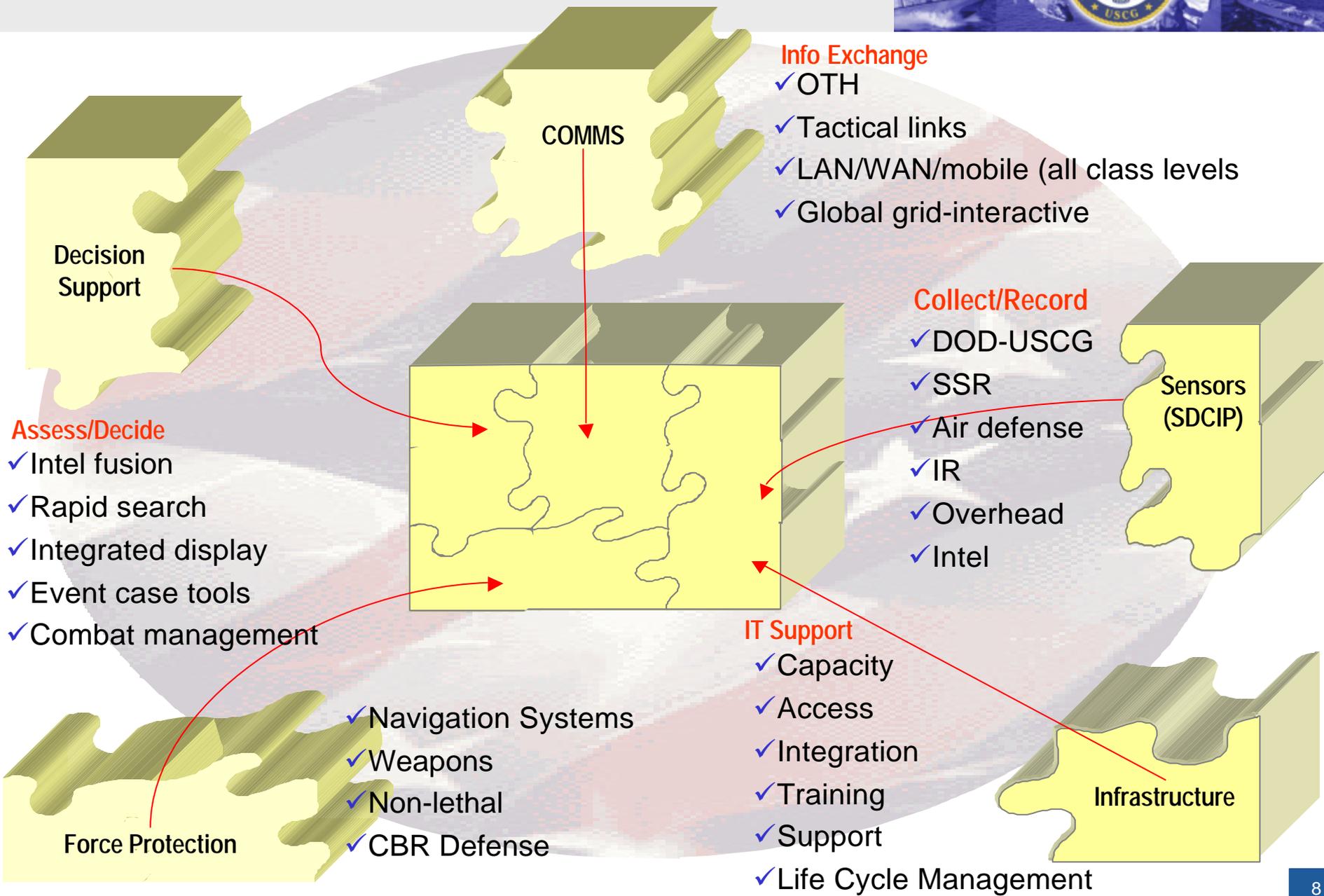
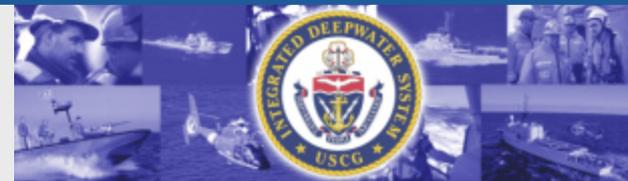
The Bottom Line - Current assets hinder operational effectiveness & cost increasingly more to operate/maintain.

Must fit with many partners

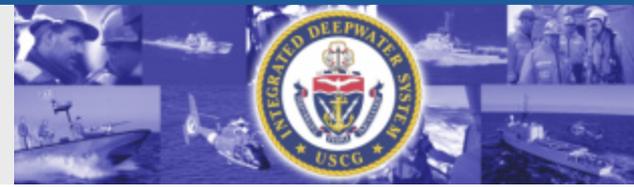


- **Joint Combined Military Roles**
- **National Security Roles**
- **Other Federal Mandates**
- **International Agreements**
- **Law Enforcement Roles**
- **Regional Agreements**

Needed C4ISR Capabilities



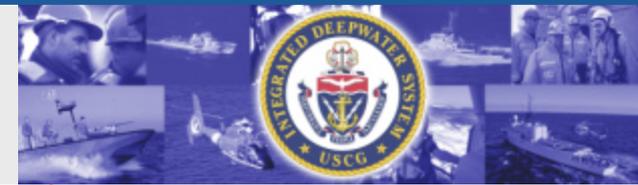
Agenda



✓ The Interoperability Puzzle

• The Innovative Acquisition Approach

What is Deepwater?



An Operational Mission Area...



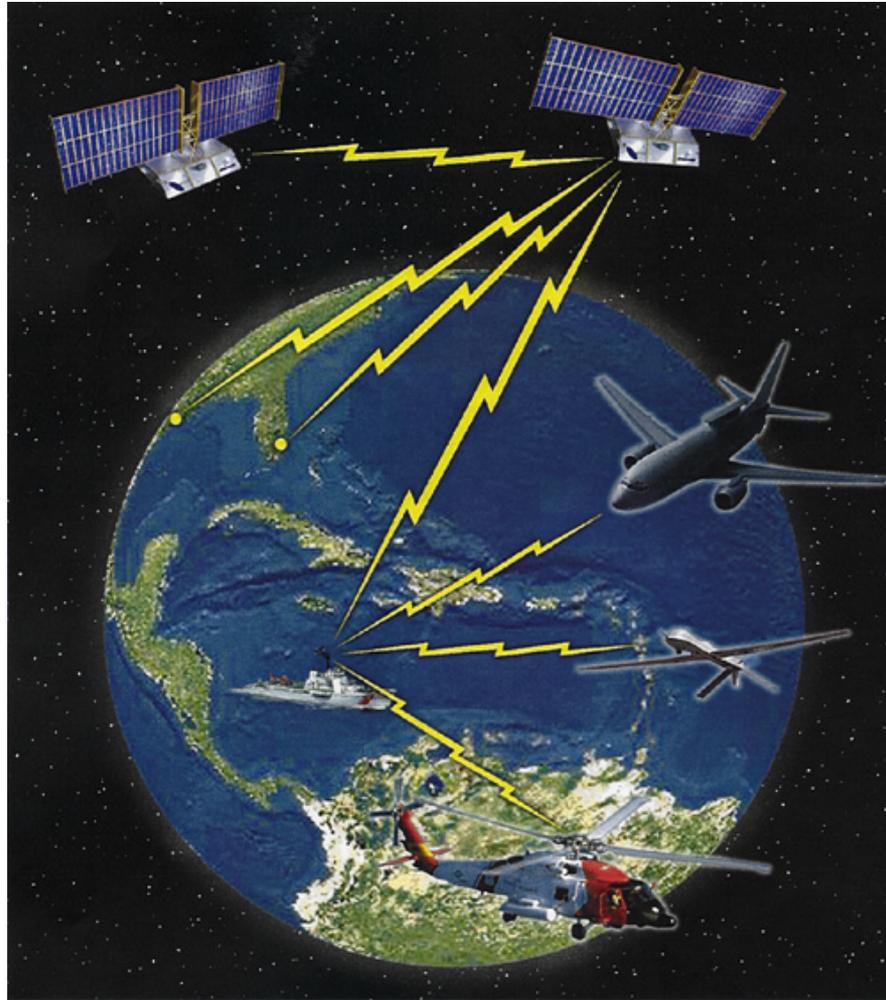
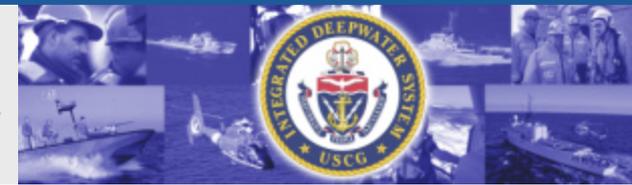
“We must make sure that our Coast Guard has got a modern fleet of vessels.”

President George W. Bush

25 January 2002

...An Acquisition Program

The Integrated Deepwater System



Acquisition Strategy:

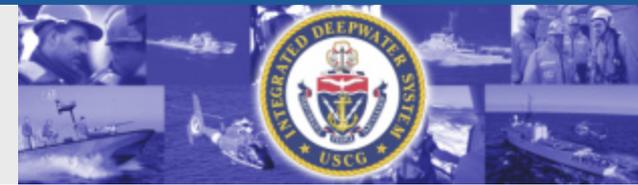
- Integrated System of Systems
- Focus on Capabilities Not Assets
- Collaborative Industry Partnership
- Chartered to embrace innovation



Overarching Objective:

- Maximize Operational Effectiveness while Minimizing Total Ownership Costs

Deepwater Objectives

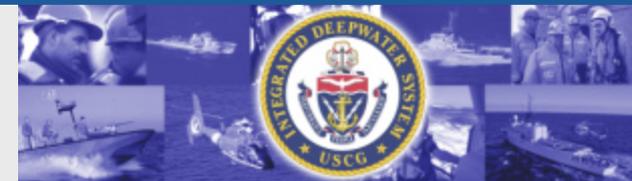


Objective of the Deepwater Project - modernize or replace the entire portfolio of Deepwater assets with an *integrated* system of surface, air, C4ISR and logistics systems that will maximize Coast Guard operational effectiveness and minimize total ownership costs.

Objective of the Deepwater C4ISR IPT - Deliver effective C4ISR systems fully *integrated* with Air, Surface & ILS elements to maximize Integrated Deepwater System performance, by:

- Leveraging advanced proven technology
- Employing a systems engineering approach
- Focusing on operational requirements
- Minimizing life cycle cost.

New Capabilities: Maritime Domain Awareness

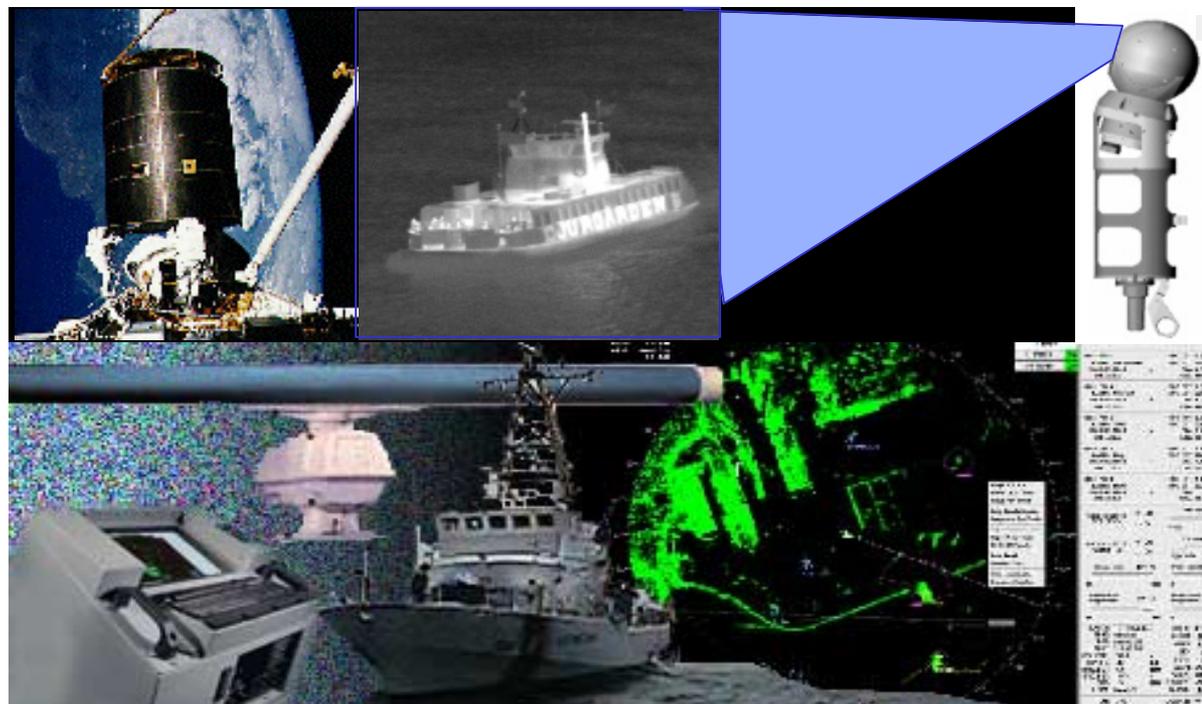


- Surveillance, Detection and Monitoring
- Classification and Identification of Targets
- Maintain Situation Awareness
- Sorting of Targets

- Fusion of local and database information in real time

- Access Databases and Data

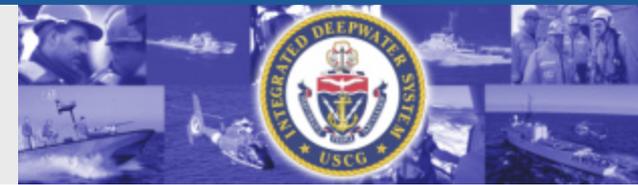
- Coast Guard
- Multiple Agencies
- National Information
- Informational databases



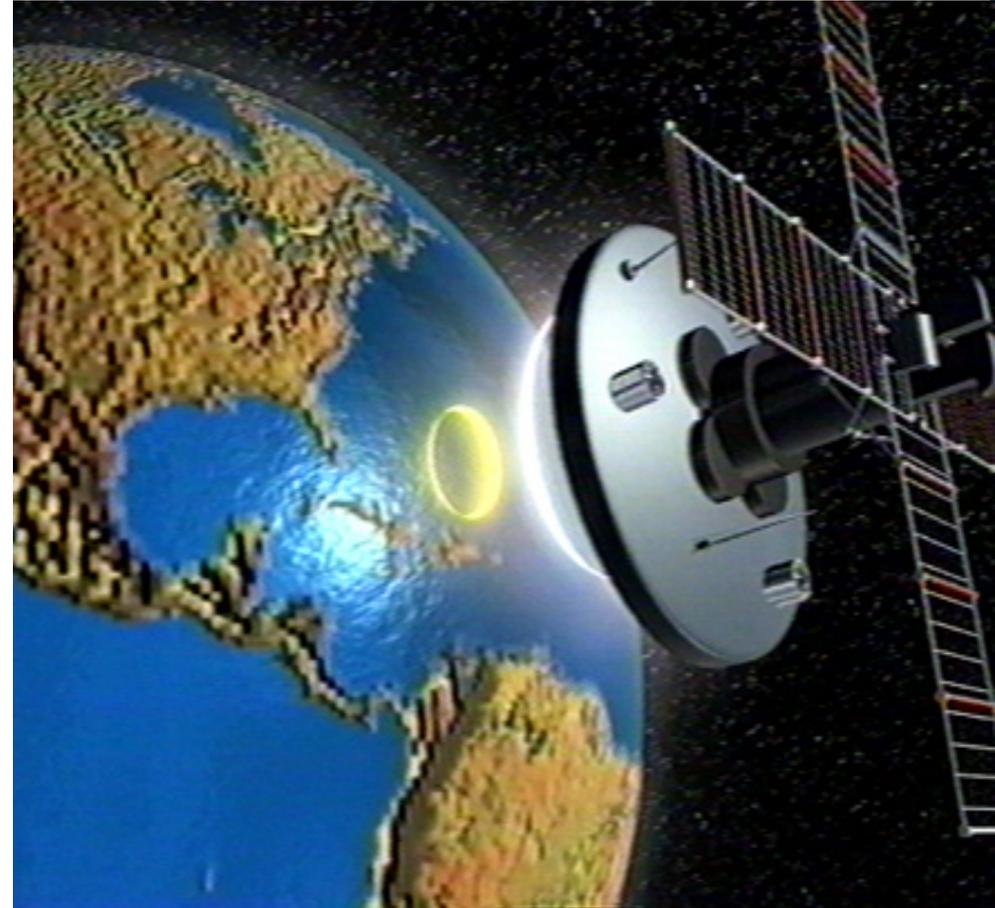
- Direct and Oversee Operations

- Command and control of multiple coast guard assets in U.S. and multi-national operations

New Capabilities: Mobile Asset Connectivity



- Internal Information Exchange
 - Simultaneous real time voice
- External Information Exchange
 - Simultaneous real time voice between all coast guard assets
- Video and data communications
 - DoD
 - NATO
 - Maritime public
 - State and local governments
 - Private sector
- IT-21

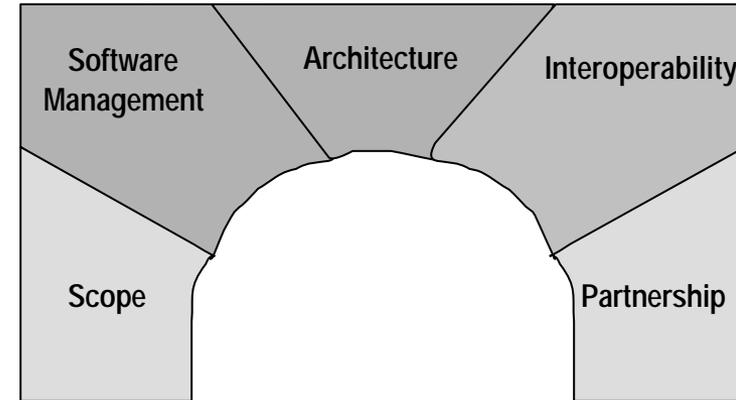


Deepwater Interoperability Approach

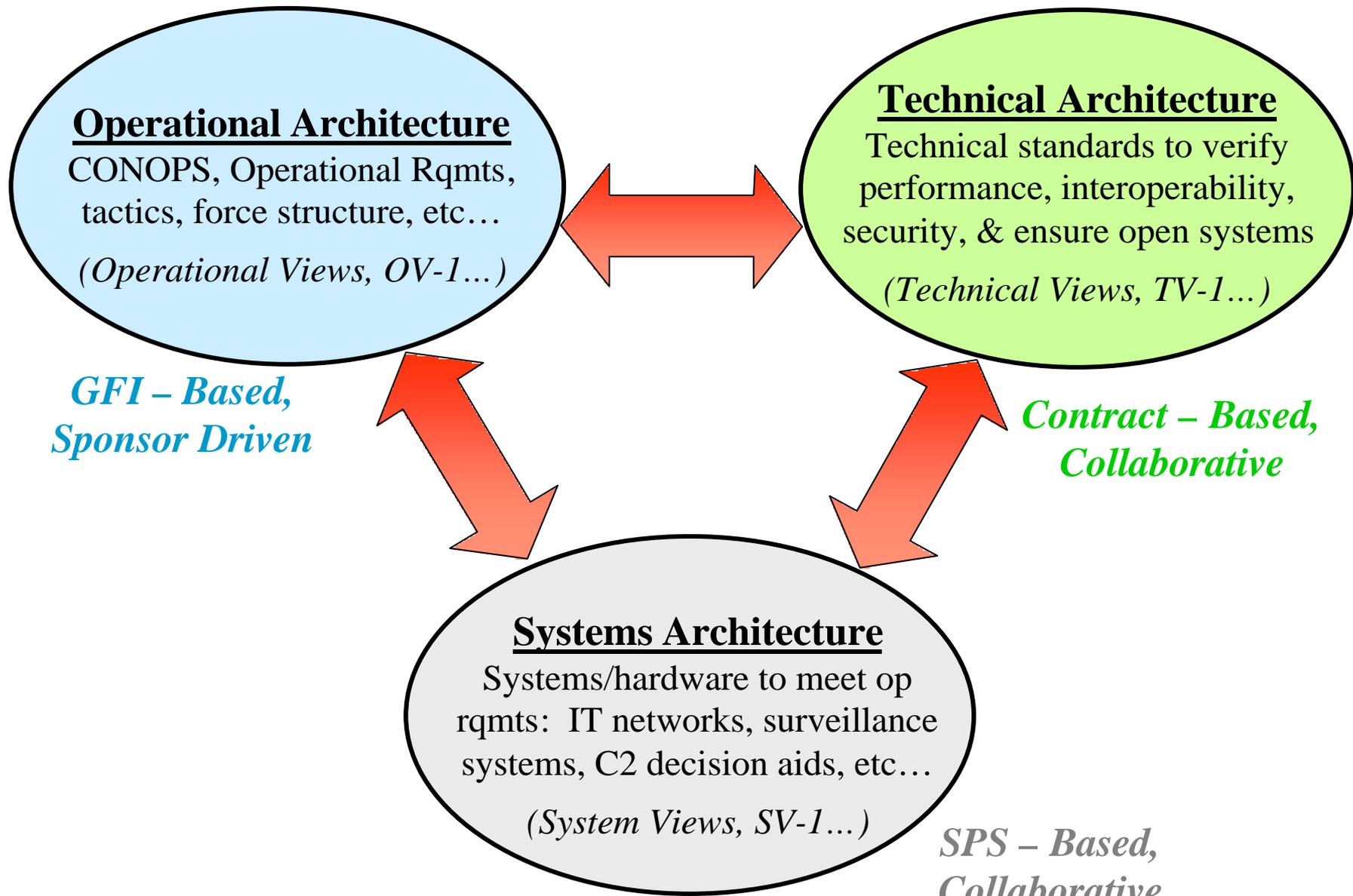
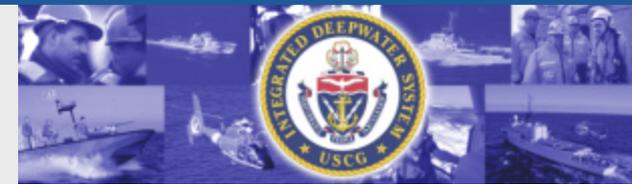


Deepwater's Integrated C4ISR Building Blocks:

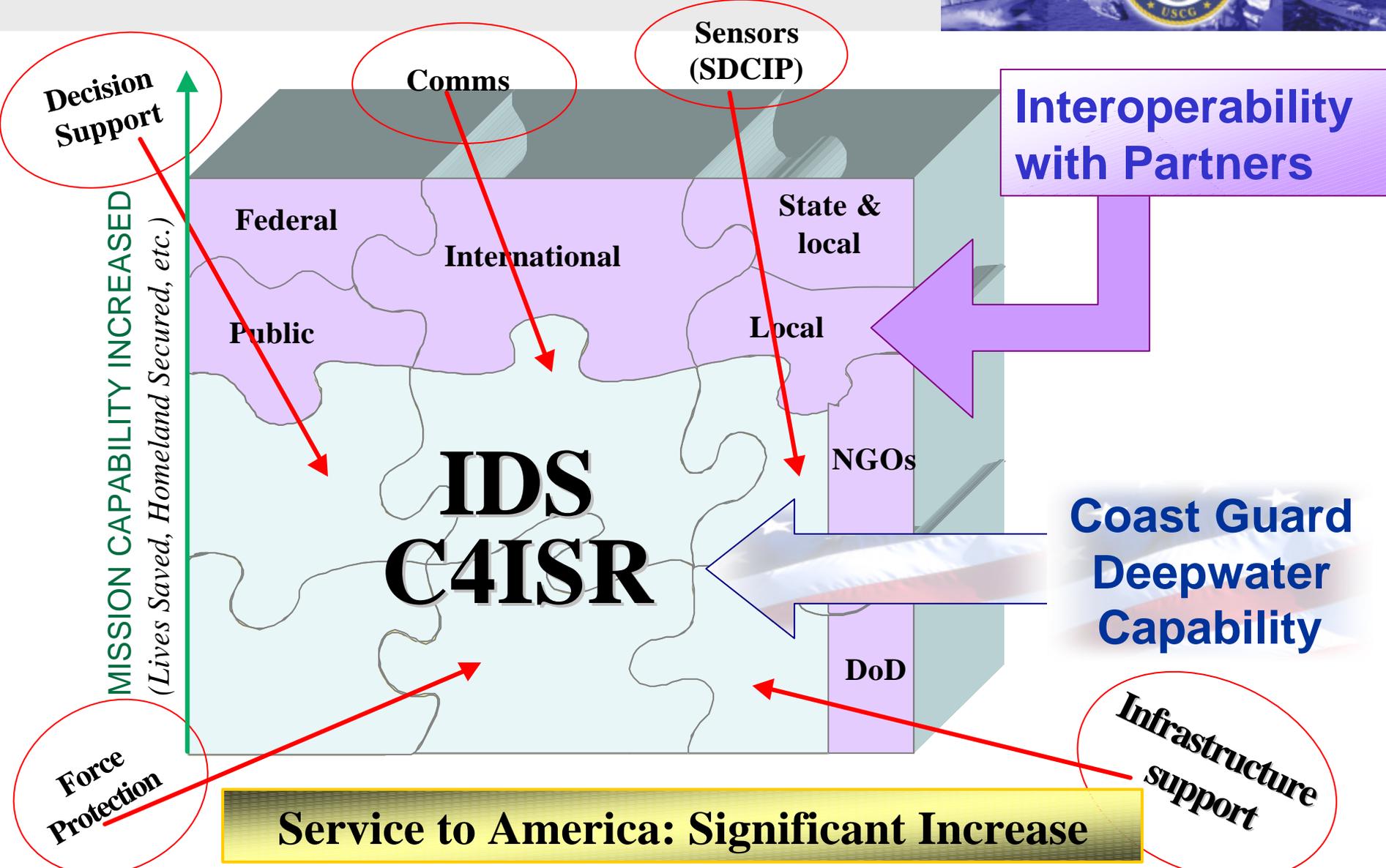
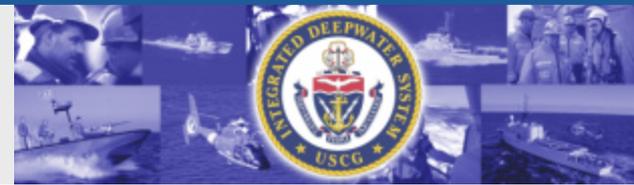
- ✓ **Deepwater Project's Expansive Scope**
- ✓ **Partnership with Full-Service Systems Integrator**
- **C4ISR Architecture Framework and Process**
 - Mandated Rigorous and documented process
 - Within DoD for C4ISR acquisitions
 - Coast Guard adopting Federal framework method
 - Deepwater Contract mandates this process
- **Systems Interoperability - MITRE's level of Info Systems Interoperability (LISI)**
 - Web based tool used to archive Legacy C4ISR system data
 - Navy will be using this tool to capture IT-21 systems data
 - Pair-wise interoperability assessments between systems to be conducted
 - We did not mandate, but provided tool, training and Legacy CG data
- **Capability Maturity Model (CMM)**
 - An industry best practice; established by Software Engineering institute (FFRDC)
 - Mandated for DoD major acquisitions (or equivalent)
 - Process has credibility with GAO
 - CMM-Software Level 3 in the Deepwater Contract
 - Staff training in CMM – Integrated ongoing



Federal C4ISR Architecture Framework Process



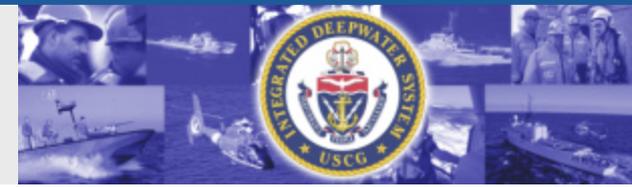
The Puzzle Solved!



Service to America: Significant Increase

Capital Investment + Integrated Approach

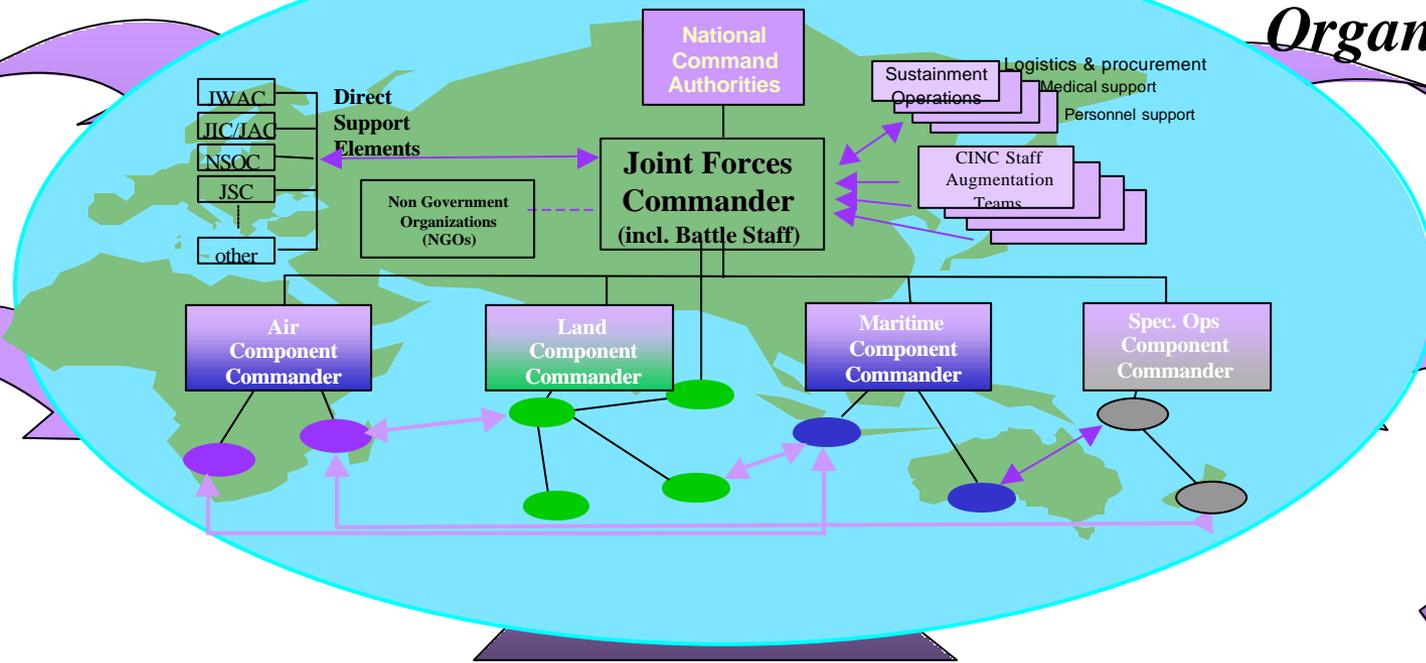
The Campaign for Achieving Information Interoperability



Nexus – The (Multinational) Joint Task Force Operations

Processes

Organizations



Verification

Funding

Integrated Architectures & Standards

Balanced & Synchronized

Doctrine Organization Training Materiel Leadership Personnel Facilities
Solution Sets Across the life cycle from “new” to “fielded”



Check us out: www.uscg.mil/deepwater