



Acquisition Directorate



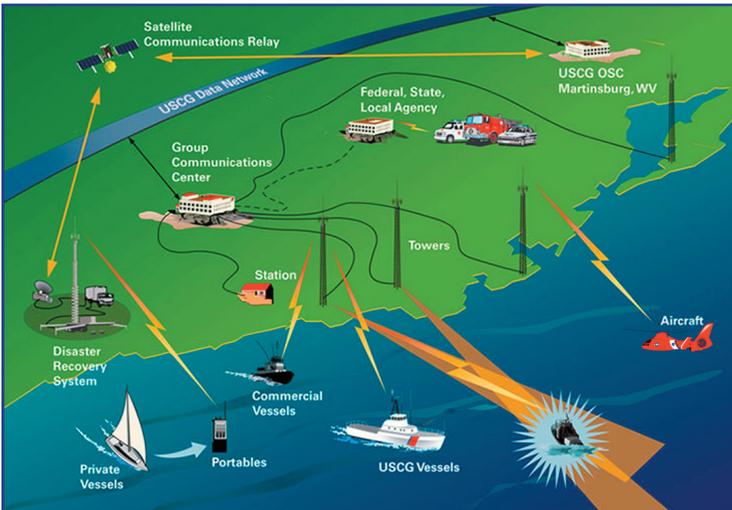
C4ISR Fact Sheet

September 2007



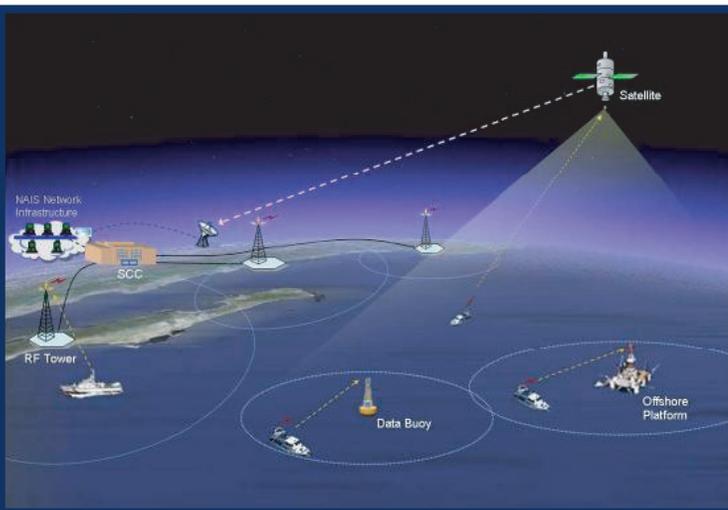
IDS Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR)

Training Center, Petaluma, Calif., is equipped with Deepwater C4ISR systems, to train Coast Guard National Security Cutter crews and U.S. Navy Littoral Combat Ship crews.



Rescue 21

Provides direction-finding capability and digital selective calling for more timely response to mariners in distress and allows protected communications for law enforcement and homeland security operations.



Nationwide Automatic Identification System (NAIS)

Is a two-way, maritime data communication system that provides vessel and navigational data, including vessel location, course, speed and cargo information

Mission execution begins *here.*

Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR)

Mission Capability: The C4ISR technology architecture is the foundation for a network that collects, processes, integrates, analyzes, evaluates and interprets mission information. The C4ISR architecture includes sensors and processing systems carried aboard manned and unmanned aircraft and cutters, as well as shore based information technology. C4ISR project includes the following efforts: Legacy Cutter Upgrade, HC-144A MRS MPA Mission System Pallets (MSP), HC-130H/J LRS MPA Mission Support Systems (MSS), C4ISR shore facility upgrades, including Training Facility, Petaluma, Calif.; Communications Area Master Stations (CAMS), and command centers. Collectively, the C4ISR architecture supports a networked operational context, through all participant platforms and units share a Common Operational Picture (COP). The COP is a multi-dimensional visualization of the operational space that extends the influence and capabilities of each individual element, or “node” in the network –including cutters and aircraft. The C4ISR architecture links the Coast Guard’s operational forces with one another, and also with the command, control, communications and intelligence capabilities of other local, state and federal agencies –including access to classified data communications through the U.S. Department of Defense’s Secret Internet Protocol Routed Network (SIPRNET).

Status: To date, 39 of the Coast Guard’s cutters have received the first phase of the Legacy Cutter Upgrade –including 14 210ft. and 13 270ft. cutters; and 12 378ft. high endurance cutters. All 39 have the Eicon Card Wide Area Network (ECWAN) upgrade; Automated Information System (AIS); and INMARSAT-B upgrade. The 12 378ft. cutters have the Law Enforcement/Marine Digital Selective Calling (DSC) Multiband (VHF/UHF) Radio upgrade. The program is currently preparing to begin Operational Test and Evaluation testing on the first three Mission Support Pallets (MSPs) delivery for the HC-144A. A total of six HC-130Js will be missionized. The program also plans to upgrade C4ISR suites aboard 130 Coast Guard helicopters. In March 2007 Training Center, Petaluma, Calif., was equipped with Deepwater C4ISR systems, to train Coast Guard National Security Cutter and U.S. Navy Littoral Combat Ship crews. C4ISR upgrades have been completed at CAMS Atlantic, and Miami and San Juan, Puerto Rico command centers. The first phase of the Legacy Cutter Upgrade has been completed, and already is demonstrating improved operational capability.

Rescue 21

Mission Capability: Rescue 21 is a \$730 million combination Search and Rescue (SAR) command and control communications and disaster relief system. Under this project, the aging National Distress and Response System (NDRS) will be complemented and ultimately replaced by a more technologically advanced system to provide SAR communications and lines of bearing along the nation’s coasts out to 20 nautical miles from shore (including selected –high transit – areas in Alaska). When fully deployed, Rescue 21 will close 88 known coastal coverage gaps, enhance digitized playback capabilities and provide Lines of Bearing (LOB) that were previously unavailable, giving watchstanders more precise information from which to make individual SAR case recommendations. The Disaster Recovery System (DRS) includes portable communications towers and other equipment designed for rapid-deployed communications coverage in the event of natural or man made disasters. Following Hurricane Katrina in 2005, the DRS proved critical to restoring communications in Southeastern Louisiana. Rescue 21 allows protected communications for law enforcement and homeland security operations, as well as improving the ability to quickly review and degrade transmissions, and enhances interoperability with other federal, state and local agencies through the implementation of dedicated interoperability communications frequencies, essential to first responders. Rescue 21 provides direction-finding capability and digital selective calling for more timely response to mariners in distress.

Status: Rescue 21 is fully operational along more than 2,200 nautical miles of U.S. coastline, encompassing the six sectors of Delaware; Maryland; Atlantic City, NJ; Chincoteague, VA.; Mobile, Ala; St. Petersburg, FL; Group/Air Station Port Angeles, and Seattle, WA. Rescue 21 Project Resident Office (PRO) Alaska was commissioned in Juneau in August 2007 to oversee the design and implementation of Rescue 21 in that state. Sector Delaware Bay is scheduled to be operational in September 2007, and Sector Long Island Sound is scheduled to be operational in October 2007. Starting with Sector New York in November 2007 through August 2008, one Rescue 21 sector will become operational per month.

Nationwide Automatic Identification System (NAIS)

Mission Capability: NAIS is a two-way, maritime data communication system that provides vessel and navigational data, including vessel location, course, speed, and cargo information. NAIS data coupled with other government intelligence and surveillance information forms a holistic, overarching view of maritime traffic within or near the U.S. and its territorial waters. NAIS will enable the USCG to identify, track and communicate with marine vessels using the AIS, a maritime digital communication system that automatically transmits and receives vessel position and voyage data over very-high frequencies. NAIS will allow the USCG to collect vessel safety and security data from AIS-equipped vessels in the nation’s territorial waters and adjacent sea areas out to approximately 2,000 nautical miles (nm) and share the data with USCG operators and other government partners.

Status: The NAIS is being implemented over three primary increments: Increment 1 (I-1) – AIS Receive Only in Critical Ports and Coastal Areas, will provide shore-based AIS receive coverage for 55 ports and 9 coastal areas across the nation by the end of FY 2007. Increment 2 (I-2) – AIS Transmit and Receive Nationwide, will build on I-1, providing shore-based AIS receive coverage out to 50 nm and AIS transmit capability out to 24 nm along the entire coastline of the U.S., U.S. territories and along designated inland waterways. Increment 3 (I-3) – AIS Long-Range Receive, will extend receive coverage out to 2,000 nm. I-3 capability is envisioned to be provided by a combination of satellite communication services and VHF services using offshore platforms and data buoys.

Note: C4ISR (IDS) improvements, Rescue 21, and NAIS all work cooperatively to ensure integration and command use of equipment where possible.