National Security Cutter (NSC/WMSL)



Characteristics:

Length: 425 feet
Displacement: 4,000 Tons
Speed: 28 kts
Range: 12,000NM
Endurance: 60 Days

Aircraft: (2) HH-60/HH-65 helos, or (4) VUAVs

Boats: (2) LRI and (1) SRP Crew (max): 18 (Officer), 128 (Enlisted)

Armament: 57MM gun and Automatic Gunfire Control System

Close In Weapons System, SLQ-32 Electronic Warfare System, SRBOC/NULKA countermeasures chaff/rapid decoy launcher

Specific Emitter Identification (SEI) Sensor System

Capability Changes:

2002 Baseline Capability	2004 MNS Capability Improvements
DoD Interoperability	DHS/DoD/RESCUE 21 Interoperability
N/a	SEI
N/a	Shipboard Sensitive Compartmentalized Information Facility (S/SCIF)
N/a	Chemical, Biological, Radiological Detection and Defense (CBRD&D)
N/a	Maritime Security Capabilities (including Enhanced Weapons Systems)
.50 Cal Manual Guns	Remote/Integrated Anti-Terrorism/Force Protection (AT/FP) Weapons
Basic Command & Control (C2)	Redundant/Hardened/Improved C2
System Quantity: 8	System Quantity: 6-8*
Baseline Cost in FY2002\$: \$266.4M**	Revised Cost in FY2002\$: \$276.6M Delta: \$10.2M
* Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term	

^{*} Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term performance goals.

Qualitative Description of Capability Changes:

The NSC was designed to be the flagship of the fleet – capable of meeting all maritime security mission needs, and supportive of the joint Coast Guard/Navy commitment to Joint Service Combatant Commanders. The NSC contributes to Intelligence Collection/Information Sharing through a sophisticated S/SCIF, SEI sensors and increased data exchange bandwidth. The NSC's Deepwater and DoD interoperability capabilities are enhanced with DHS- and local responderinteroperable radio communications. The NSC flight deck will grow to accommodate all variants of DHS and DoD HH-60 helicopters to provide enhanced interoperability with interagency and inter-service counter-terrorism teams. The NSC will now be fully integrated with the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with real-time tracking of the NSC and seamless Common Operational Picture/MDA data sharing, including the Automated Identification System (AIS). The NSC Anti-Terrorism/Force Protection suite will include underwater sonar that will allow the cutter to scan ports, approaches, facilities and high-value assets for underwater, minelike devices and detect swimmers. The cutter's small arms mounts will be remote operated and fully integrated with the cutter's radar and infrared sensors such that the cutter and high-value assets under its protection can be protected from a USS COLE-like incident. The Maritime Security Capabilities allow cutter's weapons and command and control suite to be upgraded and hardened to better survive potential terrorist incidents and process increased data flow. This will include SRBOC/NULKA missile defense system with CIWS, SLQ-32, and a medium caliber deck gun (57MM) that will provide the ability to stop rogue merchant vessels far from shore. An integrated CBRNE Detection and Defense capability allows the NSC to remain on scene and operate in Weapons of Mass Destruction (WMD) scenarios.

FY06 President's Budget Request: Funds production of the third NSC, its long lead material, and final operating capability of the first NSC.

^{**} Certain MNS revision capabilities, such as CBRD&D and the extended flight deck, have already been incorporated into the design and construction of the NSC in order to prevent costly rework; these items are reflected in this baseline cost.

Offshore Patrol Cutter (OPC/WMSM)



Characteristics:

Length: 350 feet
Displacement: 3,200 Tons
Speed: 27 kts
Range: 9,000NM
Endurance: 45 Days

Aircraft: (2) HH-60 or (4) HV-911 Boats: (2) LRI or (2) SRP Crew: 16 (O), 75 (E)

Armament: 57MM Cannon, MK15

CIWS B1B, SLQ-32, SRBOC/NULKA

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

Page 2004 MNS Capability Improvements

Full Spactrum DHS/DeD Interoporability

Deepwater Interoperability Full Spectrum DHS/DoD Interoperability

22kt Speed 27kt Speed

Std. Flt DeckExtended/Enhanced Flight DeckThreat ReceiverS/SCIF, Electronic Surveillance w/SEI30MM Gun57MM Gun with Gun Fire Control System

N/a Chemical, Biological, Radiological Detection & Defense (CBR D&D)

System Quantity: 25 System Quantity: 25

Baseline Cost in FY2002\$: \$151.3M Revised Cost in FY2002\$: \$200M Delta: \$48.7M

Qualitative Description of Capability Changes:

The OPC is currently in concept design. The revised Deepwater implementation plan provides additional capabilities to reflect the domestic environment changes post-9/11. The OPC is designed to contribute to *Intelligence* Collection/Information Sharing through a sophisticated S/SCIF, SEI sensors and increased data exchange bandwidth. The OPC's Deepwater and DoD interoperability capabilities are enhanced with DHS- and local responder-interoperable radio communications. The OPC flight deck will grow to accommodate all variants of DHS and DoD HH-60 helicopters to provide enhanced interoperability with interagency and inter-service counter-terrorism teams. The OPC will now be fully integrated with the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with real-time tracking of the OPC and seamless Common Operational Picture/MDA data sharing, including the Automated Identification System (AIS). The cutter's two-person manually operated small arms mounts will be remote operated and fully integrated with the cutters, radar and infrared sensors such that the cutter and high-value assets under its protection can be protected from a USS COLE-like incident. The Maritime Security Capabilities allow cutter's weapons and command and control suite to be upgraded and hardened to better survive potential terrorist incidents and process increased data flow. This will include a medium caliber deck gun (57MM) that will provide the ability to stop rogue merchant vessels far from shore. The OPC speed will increase from 22 to 27 knots providing exceptional response and reaction capability. This increased transit speed will allow for more time on station protecting port approaches. An integrated Chemical, Biological, and Radiological, Detection and Defense (CBRD&D) capability allows the OPC to remain on scene and operate in Weapons of Mass Destruction (WMD) scenarios.

FY06 President's Budget Request: Funds final design and the acquisition of long lead items for the first OPC.

Fast Response Cutter (FRC/WPC)



Characteristics:

Length: 147 feet Displacement: 200 Tons Speed: 30 kts Range: 1,200NM Endurance: 7 Days Aircraft: None Boats: (1) SRP Crew: 2 (O), 18 (E) Armament: 30MM Gun,

SRBOC/NULKA

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

Deepwater Interoperability DHS/DoD Interoperability

N/a CBR D&D N/a U/W Detection

30MM Gun Remote Weapons & AT/FP Suite

Baseline C4 Suite Redundant, Hardened C4
Threat Receiver ASCM Defense Survivability
20-Yr Steel Hull 40-Yr Composite Hull
System Quantity: 58 System Quantity: 43-58*

Baseline Cost in FY2002\$: \$18M Revised Cost in FY2002\$: \$40M Delta: \$22M

Qualitative Description of Capability Changes:

The FRC is currently in detailed design. The FRC has been dramatically modified to meet post 9/11 mission requirements. The original steel-hulled FRC with an expected service life of 15-20 years has been replaced with a composite-hulled craft with a 40-year hull-life. The FRC will be designed from the keel up to be Deepwater interoperable. The FRC will receive enhanced *Maritime Security Capabilities* that will support Homeland Security and Homeland Defense in American waters through increased speed and lethality. The FRC speed will increase from 28 to 30 knots providing exceptional response and reaction capability. This increased transit speed will allow for more time on station protecting port approaches. *CBR D&D* will be integrated to allow the FRC to respond to WMD incidents and provide a federal on-scene presence. The FRC will now receive critical *DHS and DoD communications Interoperability* improvements that will equal those that exist in the fleet today, including Military Satellite Communications (MILSATCOM) and local responder-interoperable radio communications. *Common Operational Picture* enhancements to the FRC will now be fully integrated with the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with real-time tracking of the FRC and seamless data sharing, including the Automated Identification System (AIS). Electronic surveillance systems will feed the Deepwater *Intelligence Collection/Information Sharing/MDA*. The cutter's small arms mounts will be remote operated and fully integrated with the cutter's radar and infrared sensors such that the cutter and high-value assets under its protection can be protected from a USS COLE-like incident.

FY06 President's Budget Request: Funds initial operating capability of the FRC.

^{*} Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term performance goals.

Long Range Interceptor (LRI)



Characteristics:

Length: 35 feet
Displacement: 15 Tons
Speed: 45 kts
Range: 400NM
Endurance: 10 Hours
Crew: 2 + 8 PAX

Armament: .60 Cal Machine Gun

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

Deepwater Interoperability DHS/DoD/RESCUE21 Interoperability

System Quantity: 40 System Quantity: 31-33*

Baseline Cost in FY2002\$: \$0.6M Revised Cost in FY2002\$: \$0.7M Delta: \$0.1M

Qualitative Description of Capability Changes:

The quantity of LRIs are planned to compose a smaller part of Deepwater's final strength in a trade off with the Short Range Prosecutor that maximizes the utility of these two small boat assets. The LRI will now receive critical *DHS and DoD C4ISR* interoperability improvements including MILSATCOM, local responder-interoperable radio communications and integration into the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with real-time tracking of the LRI and seamless data sharing, including the Automated Identification System (AIS). The LRI provides the ability for a cutter to deploy an armed boarding or counter-terrorism team over the horizon, up to 100NM from the cutter at speeds of 45kts or more. The enclosed cabin of the boat will provide crew protection for up to 10 hours thereby increasing operational presence and deterrence in security situations. The bow-mounted M242 machine gun provides visible deterrence and stopping power against maritime targets.

FY06 President's Budget Request: Funds the acquisition of 2 LRIs.

Short Range Prosecutor (SRP)



Characteristics:

Length: 25 feet
Displacement: 9 Tons
Speed: 32 kts
Range: 200NM
Endurance: 4 Hours
Crew: 2 + 8 PAX
Armament: Small Arms

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

Deepwater Interoperability DHS/DoD/RESCUE21 Interoperability

System Quantity: 80 System Quantity: 74-91*

Baseline Cost in FY2002\$: \$0.3M Revised Cost in FY2002\$: \$0.3M Delta: \$0M

Qualitative Description of Capability Changes:

The quantity of SRPs will compose a larger component of the Deepwater system in a trade off with the LRI that maximizes the utility of these two small boat assets. The SRP provides the capability to deploy armed boarding teams within 20 miles of the parent cutter at speeds of 32 knots. The SRP can exchange data with the parent cutter, thereby maintaining a coordinated response posture and respond quickly to security zone breaches.

FY06 President's Budget Request: Does not seek funding for SRPs

^{*} Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term performance goals.

^{*} Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term performance goals.

HC-130 Long Range Search Aircraft (LRS)



Characteristics:

Speed: 330 kts

Range: 4100 (H), 5500 (J) NM Endurance: 14 (H), 21(J) Hours

Crew: 2 (O), 5 (E)

Sensors: Inverse Synthetic Aperture (ISAR) Radar, Electro-

Optical/Infrared (EO/IR), SEI

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

N/a CBR D&D

Deepwater Interoperability DHS/DoD/RESCUE21 Interoperability

OTCIXS Feed CG COP Connectivity
FLIR Integrated EO/IR
N/a C2 Pallet

System Quantity: 6 System Quantity: 22

FY2002\$: \$0M (Existing Asset) FY2002\$: \$4.9M Delta: \$4.9M

Qualitative Description of Capability Changes:

The new HC-130J aircraft will provide long-range air coverage over the entire Coast Guard area of responsibility and increase the overall MDA/Common Operational Picture. The primary role of these aircraft will be to meet the long range maritime patrol requirements in the vast Pacific Ocean areas that cannot be accomplished by the medium range surveillance (MRS) CASA aircraft. The LRS will additionally provide heavy Air Transport for Maritime Safety & Security Teams (MSSTs), Port Security Units (PSUs), and the National Strike Force (NSF). The LRS will not only be Deepwater interoperable, but DHS and DoD Interoperable including MILSATCOM and local responder-interoperable radio communications. The LRS will now be fully integrated with the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with seamless data sharing, including the Automated Identification System (AIS). Intelligence-Information Collection and Sharing for Deepwater will be enhanced as the LRS will receive enhanced radar and optical sensors and will share a common C4ISR pallet with the MRS which will provide for integrated command and control and make the LRS a potential airborne command center. The LRS will receive Chemical, Biological, Radiological, Nuclear and Explosive Detection and Defense (CBR D&D) capabilities that will allow for insertion of specialized teams (e.g., the National Strike Force) into potential "hot" areas.

FY06 President's Budget Request: Funds upgrades to and replacement of C-130H Avionics, MILSATCOM, weather radar, and search radar. The LRS solution includes both new C-130Js that are currently unmissionized and legacy HC-130Hs. The Hs require upgrades to ensure their continued performance in the Deepwater system until they are finally retired in decades to come.

HC-235 Medium Range Search Aircraft (MRS) (aka MPA)



Characteristics:

Crew:

Speed: 236 kts

Range: 2117NM (empty) Endurance: 8.7 Hours

Sensors: ISAR Radar, EO/IR, SEI

2 (O), 3 (E)

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

N/a CBR Defense & Detection

Deepwater Interoperability DHS/DoD/RESCUE21 Interoperability

System Quantity: 35 System Quantity: 20-36*

Baseline Cost in FY2002\$: \$33M Revised Cost in FY2002\$: \$33.5M Delta: \$0.5M

Qualitative Description of Capability Changes:

The MRS is an essential, highly capable element of the revised Deepwater implementation plan. The MRS will not only be Deepwater interoperable, but *DHS and DoD C4ISR Interoperable* including MILSATCOM and local responder-interoperable radio communications. The MRS will now be fully integrated with the National Distress Response Modernization Program, known as RESCUE 21, which will provide the port commanders with seamless *Common Operational Picture/MDA* data sharing, including the Automated Identification System (AIS). The MRS will share a common C4ISR pallet with the LRS, which provides for integrated command and control and makes the MRS a potential airborne command center and significant contributor to logistics transport. These capabilities feed the national *Intelligence-Information Collection & Sharing/MDA* picture. The MRS will be the second logistical workhorse for the fleet (with the LRS), with the ability to conduct *Air Transport* for smaller personnel and parts loads around the U.S. and Caribbean basin. The MRS will receive *Chemical, Biological, Radiological, Nuclear and Explosive Detection and Defense (CBR D&D)* capabilities that will allow for insertion of smaller, specialized teams (e.g., NSF) into potential "hot" areas.

FY06 President's Budget Request: Does not seek any MRS funding. In FY06 the Coast Guard will begin operational assessment of the first MRS (CASA aircraft) delivered with prior year funding. Following this evaluation period, the Coast Guard projects seeking additional MRS funding in the out years.

^{*} Displays a range of assets, final fleet size will be, at a minimum, sufficient to meet the Coast Guard's long-term performance goals.

HH-60J Medium Range Recovery Helicopter (MRR)



Characteristics:

 Speed
 170 kts

 Range:
 600NM

 Endurance:
 6 Hours

 Crew:
 2 (O), 2 (E)

Pax: 6 (Armed) 18 (Survivors)

Sensors: Radar, EO/IR,

Armament: .50 Cal Sniper, M242 .60Cal

Machine Gun

Capability Changes:

2002 Baseline Capability 2004 MNS Capability Improvements

N/a CBR D&D

Deepwater Interoperability
N/a

DHS/DoD/RESCUE21 Interoperability
Armed, Hardened Airborne Use of Force

N/a VI/VDEL

N/a COP Connectivity System Quantity: 29 System Quantity: 42*

FY2002\$: \$0M (Existing Asset) FY2002\$: \$3.5M Delta: \$3.5M

Qualitative Description of Capability Changes:

The MRR solution has been dramatically altered in the revised Deepwater implementation plan. The HH-60 will be modernized with improved avionics and a new T700 turbine power plant. The hardened HH-60 will receive an Airborne Use of Force (AUF) package that will provide the capability to fire warning and disabling shots from the air while providing for crew protection from small arms fire. When deployed from a Coast Guard flight deck-equipped cutter, this gives the cutter the ability to apply force against a maritime target up to 400NM away. The MRR will additionally provide a Vertical Insertion and Vertical Delivery (VI/VDEL) capability – the ability to deliver a 6-person interagency counter-terrorism or response team 200NM from a US shore or a Coast Guard flight deck equipped cutter. The combination of these capabilities makes the Coast Guard MRR ideally suited to support National Special Security Events (NSSEs) as recently demonstrated during the G-8 Summit and Republican and Democratic National Conventions. The MRR will not only be Deepwater interoperable, but DHS and DoD C4ISR Interoperable including local responder-interoperable radio communications. The MRR will receive enhanced radar and optical sensors and will share a Common Operational Picture/MDA data exchange capability. The MRR will receive CBR D&D capabilities that will allow for insertion of specialized teams (e.g., NSF) into potential "hot" areas.

* The revised Deepwater implementation plan retains and upgrades the Coast Guard's existing fleet of HH-60s rather than acquire new MRR replacement aircraft. The original Deepwater baseline had notionally selected the smaller AB-139 as the MRR. This aircraft was determined to be unsuitable to meet the post 9/11 Airborne Use of Force and Vertical Insertion/Vertical Delivery mission requirements. The retention and upgrade of HH-60s also creates a \$500M savings to the system that can be applied to other asset capability upgrades.

FY06 President's Budget Request: Funds HH-60 AUF and V/VDEL installs, avionics upgrades, service life extension work, search radar and EO/IR upgrades.

HH-65C Multi-Mission Cutter Helicopter (MCH)



Characteristics:

Speed: 160 kts Range: 400NM Endurance: 4 Hours Crew: 2 (O), 1 (E)

Pax: 3-4 (Armed) 4 (Survivors)

Sensors: Radar, EO/IR

Armament: .50 Cal Sniper, M242 .60Cal MG

2002 Baseline Capability 2004 MNS Capability Improvements

N/a CBR D&D

Deepwater Interoperability DHS/DoD/RESCUE21 Interoperability

CD Use of Force MHS Airborne Use of Force

N/a VI/VDEL

N/a COP Connectivity System Quantity: 93 System Quantity: 95

Baseline Cost in FY2002\$: \$6.7M Revised Cost in FY2002\$: \$8.8M Delta: \$2.1M

Qualitative Description of Capability Changes:

The MCH is an extremely agile and sophisticated aircraft that is dramatically improved through the revised Deepwater implementation plan. The MCH power plant is upgraded with Turbomeca 2C2 turbines providing substantial power, flight control and flight safety improvements. The MCH will receive an Airborne Use of Force (AUF) package that will provide the capability to fire warning and disabling shots from the air. When deployed from a Coast Guard flight deck-equipped cutter, this gives the cutter the ability to apply force against a maritime target up to 100NM away. The MCH will additionally provide a Vertical Insertion and Vertical Delivery (VI/VDEL) capability – the ability to deliver a 3-person interagency response team 50NM from shore or a Coast Guard flight deck-equipped cutter. The combination of these capabilities makes the MCH ideally suited to support National Special Security Events (NSSEs) as recently demonstrated during the G-8 Summit and Republican and Democratic National Conventions. The MCH will not only be Deepwater interoperable, but DHS and DoD C4ISR Interoperable including local responder-interoperable radio communications. The MCH will receive enhanced radar and optical sensors and will share a Common Operational Picture/MDA data exchange capability. These capabilities will be integrated with an improved avionics suite. The MCH will receive CBR D&D capabilities that will allow for standoff detection and crew protection capability.

FY06 President's Budget Request: Funds re-engining of the HH-65 (MCH phase I).

HV-911 VTOL Unmanned Aerial Vehicle (VUAV)



Characteristics:

Speed: 211 kts
Range: 100NM
Endurance: 6 Hours
Sensors: Radar, EO/IR

2002 Baseline Capability 2004 MNS Capability Improvements

N/a CBR D&D

System Quantity: 69 System Quantity: 45

Baseline Cost in FY2002\$: \$6.5M Revised Cost in FY2002\$: \$6.6M Delta: \$0.1M

Qualitative Description of Capability Changes:

The quantity of VUAVs will be a smaller component of the Deepwater system to reflect a more efficient use of VUAVs per operational flight decks. The VUAV will receive *Chemical, Biological, Radiological, Nuclear and Explosive Detection and Defense (CBR D&D)* capabilities that will allow for an unmanned standoff detection and monitoring capability. The VUAV will receive an air-to-air and air-to-surface multimode radar that will improve the *Common Operational Picture/MDA* to a range of 100NM from the flight deck-equipped cutter.

FY06 President's Budget Request: Funds the full operational capability of the first three VUAVs, production of the third VUAV, missionization of all three aircraft, and acquisition of ground control technology and training.

RQ-4A High Altitude Endurance Unmanned Aerial Vehicle (HAEUAV)



Characteristics:

Speed: 340 kts Range: 2,800NM Endurance: 30 Hours

Sensors: ISAR Radar, EO/IR

 2002 Baseline Capability
 2004 MNS Capability Improvements

 No Changes
 System Quantity: 4

 System Quantity: 4
 System Quantity: 4

Qualitative Description of Capability Changes:

The RQ-4A is a leased system that will require no improvements in the revised Deepwater implementation plan. The baseline capability of the platform is substantial. The HAEUAV will have a sophisticated sensor suite with ISAR radars and EO/IR cameras that will feed the national *Common Operational Picture/MDA*. The airframe will be equipped with a Specific emitter ID capability and AIS to feed the *Intelligence-Information Collection and Sharing*. The quantity of HAEUAVs in the system has been reduced to reflect the strategic utilization of the platform in future years.

FY06 President's Budget Request: Does not fund any capital investment in HAEUAVs, since this aircraft will be leased from the supplier once the Deepwater infrastructure to support it has been fully implemented.

C4ISR Capability/Maritime Domain Awareness-MDA



2002 Baseline Capability
Deepwater C4 Interoperability
Two CG COPs
Electronic Systems
Shore Intel Connectivity
Reduced Manning
Enhanced Electronics
Integrated Logistics (ILS)
Baseline Self Defense Systems

2004 MNS Capability
DHS/DoD Interoperability
RESCUE 21/AIS/One COP
Redundant/Hardened Systems
Shore Intel/C4 Improvements
Enhanced Human Factors Eng.
Operator Training/Planning Aids
Additional ILS for New Systems
Maritime Security Capabilities

FY2002\$: \$1,000M FY2002\$: \$1,226.5M Delta: \$226.5M

Characteristics:

- Command & Control Improvements
- Radio Direction Finding Upgrade
- Satellite Communication Interoperability with DoD
- Communication Automation
- High Frequency Auto Linking
- Boarding Party Communication Upgrade

Qualitative Description of Capabilities: America's first viable enterprise level Maritime Domain Awareness (MDA) system will be produced in the Deepwater Program. The fully implemented C4ISR system will be integrated with Deepwater cutters, aircraft and shore facilities, using common software, systems, and components across all surface, air and shore assets. This system provides interoperability, improved situational awareness and the ability upon completion to fuse many disparate sources of information into a relevant and useable Common Operational Picture (COP). This provides operational commanders the tactical awareness, planning and decision tools required to prosecute their missions more effectively. C4ISR improvements also include robust communications systems establishing clear and secure voice and data communication across the broad frequency spectrum required by USCG operations. Most importantly, the C4ISR solution integrates each asset's passive and active sensor information, enhancing America's Maritime Common Operational Picture (COP).

FY06 President's Budget Request: Funds C4ISR Increment 3 which results in greater functionality of the current Command and Control System used by Coast Guard cutters, aircraft, and shore assets. There will be continued upgrading of 270' and 210' medium Endurance Cutters for Boarding Party Communications, Law Enforcement/Marine Band Radio, Voice and Data Automation as well as the replacement of the Radio Direction Finding (RDF) System and the start of the Identification Friend or Foe Transponder and Interrogator System. Shore Communications Area Master Stations have to be upgraded to use the Law Enforcement/Marine Band Radio, Voice and Data Automation equipment being put on the cutters.