Command, Control, and Communications Engineering Center (C3CEN)

C3CEN Industry Day 2018
CAPT Michael F. Nasitka
Commanding Officer
Our Mission
We deliver, manage, and support mission-enabling Command, Control, Communications, Surveillance, Intelligence, and Navigation capability through engineering rigor, innovation, and standard processes you can trust.

Our Vision
We will be the CG and DHS premier engineering, lifecycle, and service management center for Command, Control, Communications, Surveillance, Intelligence, and Navigation systems.

Our Motto
“Sustaining the Present... Developing the Future”
C3CEN: Our Guiding Principles

**People**
- Communication, Teamwork, Partnerships, Success, Clear Job Expectations, Accomplishment, Responsibility, Trust, Empowerment, Challenge, Wellness, Job Satisfaction, Making Work Fun

**Stewardship**
- Excellence in Stewardship, Balance, Optimization, Integrity, Community Service, Measurement, Analysis

**Readiness**
- Customer Focus, Mission, Agility, Flexibility, Adaptability, Innovation, Responsiveness, Mission Success, Proactiveness

**CO’s Command Philosophy**
- “People First...Mission Always”
- “Be the PRO”: show Pride, give Respect, take Ownership
C3Cen Challenges

- Too many stovepipe solutions
- No holistic look at all communications paths
- Overly reliant on COMSATCOM
- Disconnect between ashore and afloat systems
End-to-end Track Management: Getting Underway Checklist

- Understand what a “track” is
- Implement standard track data tagging schema
- Provide a common viewer and management toolset
- Implementation of unique universal track identifications across all domains and enclaves

Detect, identify, classify, distribute, correlate, and manage tracks across all domains and platforms
Transmission and Display of Mission Data: Getting Underway Checklist

- Identify and prioritize mission data requirements across platforms
- Establish multiple, seamless communications paths across platforms and partners, using wired and wireless techniques to all users, including the mobile and/or disadvantaged user
- Implement access, authorization, and entitlement controls for data
- Engineer, from the beginning, cyber-secure systems compliant with US Cybercom, IDDs and data sharing standards
- Enter mission data once and make it available everywhere
CG Director of Small Business and Industry Liaison Programs

C3CEN Industry Day 2018
Mr. Dwight Deneal

Command, Control, and Communications Engineering Center
Sustaining the Present...Developing the Future
R.E.A.D.Y....SET...GROW

Doing Business with the

USCG Contracting Enterprise
FY 18 Dollars $3.4B

FY 18 TOP 5 NAICS

<table>
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<th>NAICS</th>
<th>$'s</th>
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<tr>
<td>336611</td>
<td>$1.1B</td>
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<tr>
<td>SHIP BUILDING AND REPAIRING</td>
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<tr>
<td>541330</td>
<td>$234M</td>
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<td>ENGINEERING SERVICES</td>
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<td>336413</td>
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<td>OTHER AIRCRAFT PARTS EQUIPMENT MANUFACTURING</td>
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<td>541611</td>
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<tr>
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<td>$106M</td>
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<td>COMPUTER SYSTEMS DESIGN SERVICES</td>
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FY 18 SB Achievements

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<tr>
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<th>Achieved</th>
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<tr>
<td>Total SB</td>
<td>40.21%</td>
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<tr>
<td>SDB</td>
<td>16.20%</td>
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<tr>
<td>WOSB</td>
<td>6.43%</td>
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<tr>
<td>SDVOSB</td>
<td>5.12%</td>
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<tr>
<td>HUBZone</td>
<td>4.43%</td>
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FY 18 TOP 5 PSCs

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<tr>
<th>Category</th>
<th>PSCs</th>
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<tr>
<td>1990</td>
<td>MISCELLANEOUS VESSELS</td>
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<tr>
<td>1905</td>
<td>COMBAT SHIPS AND LANDING VESSELS</td>
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<tr>
<td>R425</td>
<td>ENGINEERING TECHNICAL SUPPORT</td>
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<tr>
<td>J016</td>
<td>MAINT/REPAIR OF EQUIPMENT</td>
</tr>
<tr>
<td>D399</td>
<td>IT AND TELECOM</td>
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Mission execution begins here.
Who and Where are We?

UNITED STATES COAST GUARD
Chiefs of Contracting Office

Surface Forces Logistics Center
Baltimore, Maryland
COCO-Mille Figueroa
COCO(d)-Thomas Fout
CG-912
Washington, DC
COCO-Jennie Peterson
COCO(d)-Andrew Canty
HCA (Head of Contracting Activity)
Washington, DC
HCA-Michael Demos
HCA(d)-Eric Thaxton
HCA Chief of Staff-Trena Mills

C4IT (Command Control, Communication, Computer & Information Technology)
Alexandria, Virginia
COCO-Orde Davis

SILC-BSS
Norfolk, Virginia
COCO-Mila Grant
COCO(d)-Jeanie Thome

SILC-Construction
Norfolk, Virginia
COCO-Ross Woodson

ALC (Aviation Logistics Center)
Elizabeth City, North Carolina
COCO-David Burgess
COCO(d)-Tabitha Callon

As of 12/05/2017
### Chief of Contracting Offices (COCO) Areas of Responsibilities (AORs)

<table>
<thead>
<tr>
<th>Office of Contract Operations (CG-912)</th>
<th>Aviation Logistics Center (ALC)</th>
<th>Command, Control, Communications, Computer &amp; Information Technology (C4IT)</th>
<th>Shore Infrastructure Logistics Center-Construction (SILC-CON)</th>
<th>Shore Infrastructure Logistics Center-Base Support (SILC-BSS)</th>
<th>Surface Forces Logistics Center (SFLC)</th>
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<tr>
<td><strong>Support Acquisitions for:</strong></td>
<td><strong>Support Acquisitions for:</strong></td>
<td><strong>Support Acquisitions for:</strong></td>
<td><strong>Support Acquisitions for:</strong></td>
<td><strong>Support Acquisitions for:</strong></td>
<td><strong>Support Acquisitions for:</strong></td>
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<tr>
<td>CG HQs</td>
<td>Aviation Fleet:</td>
<td>C4IT Service Center:</td>
<td>shore infrastructure:</td>
<td>Base Operations:</td>
<td>Fleet:</td>
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<td>C4IT</td>
<td>Engineering</td>
<td>IT Operations and Maintenance</td>
<td>Supplies</td>
<td>Engineering</td>
<td>Engineering</td>
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<td>Aircraft Major Systems</td>
<td>Supply</td>
<td>Hardware</td>
<td>Supply</td>
<td>Supply</td>
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<tr>
<td>Marine Vessel Major Systems</td>
<td>Logistics</td>
<td>Software</td>
<td>Services</td>
<td>Logistics</td>
<td>Logistics</td>
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<tr>
<td></td>
<td>Depot Maintenance</td>
<td>IT Services</td>
<td>Services</td>
<td>Depot Maintenance</td>
<td>Depot Maintenance</td>
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</tbody>
</table>

- **CG HQs**
- **C4IT**
- **Aircraft Major Systems**
- **Marine Vessel Major Systems**
- **Engineering**
- **Supply**
- **Logistics**
- **Depot Maintenance**
- **IT Operations**
- **IT Hardware**
- **IT Software**
- **IT Services**
- **Construction**
- **Architecture**
- **Engineering**
- **Supplies**
- **Services**
- **Engineering**
- **Supply**
- **Logistics**
- **Depot Maintenance**
THE USCG BUYING CONTINUUM

USCG Contracting Enterprise

WHAT WE BUY

FACILITY MAINTENANCE
HAZMAT MATERIALS & DISPOSAL SERVICES
LIFE SUPPORT EQUIPMENT
AIRCRAFT & VESSEL PARTS
GROUNDS & HOUSING SERVICES
MEDICAL SERVICES
A&E CONSTRUCTION SERVICES
IT Enterprise Servers and Services
IT O&M
SATELLITE AND RADIO COMMUNICATION
Radars & Navigation Receivers

REPAIR SERVICES FOR COAST GUARD VESSELS
MAJOR ELECTRONIC SYSTEMS
REPAIR SERVICES FOR COAST GUARD AIRCRAFT
MARINE SCIENCES SERVICES
PROFESSIONAL & CONSULTING SERVICES
INDUSTRIAL TRADE SERVICES

Acquisition Directorate
Procurement Policy & Oversight
DHS Strategic Sourcing Directive* & USCG Contracting Enterprise Spend Analysis

**OASIS**
Scope: Professional Service IDIQ for 1) Pro Mgmt 2) Mgmt Consult 3) R&D 4) Eng 5) Log and 6) Fin

**PACTS II**
Scope: Professional Services IDIQ for non-IT 1) Pro Mgmt, 2) Admin, 3) Ops and Tech Services

**EAGLE II**
Scope: Professional Services IDIQ for IT End-to-End Solutions Support

**TABSS**
Scope: Technical, Acquisition and Business Support Services. **Phased Out to OASIS**

**Architecture and Engineering Services II**
Scope: Architectural Engineering services IDIQ

**First Source II**
Scope: IT commodity products IDIQ in, but not limited to 1) Hardware 2) Software 3) Peripherals, Netwk 4) Infrast Support

**FY 18 Snapshot**

- **OASIS**: $271.7 M (51.3%)
- **PACTS II**: $87.1 M (1.5%)
- **EAGLE II**: $49.2 M (9.3%)
- **TABSS**: $7.9 M (1.5%)
- **Architecture and Engineering Services II**: $36.1 M (6.8%)
- **First Source II**: $77.1 M (14.6%)

Total $’s Spent: **$529.3 M**

*DHS Directive 060-01*
### Key Takeaways for Doing Business with USCG

<table>
<thead>
<tr>
<th>Accessibility:</th>
<th>Capability:</th>
<th>Transferability:</th>
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<tbody>
<tr>
<td>Understand the various strategic sourcing vehicles that USCG utilizes for acquisition efficiency and leverage these vehicles for business development</td>
<td>Understand your company’s core capabilities and hone in on your capabilities to meet the USCG’s business needs</td>
<td>Understand your variety of past performance(s) and demonstrate through proposal responses how it applies to the USCG business needs</td>
</tr>
</tbody>
</table>
DHS Acquisition Planning Forecast System (APFS)

How to find USCG projected procurement opportunities

http://apfs.dhs.gov/
USCG SMALL BUSINESS PROGRAMS

NOTE:
Please contact the cognizant Small Business Specialist (SBS) in the command or logistics center with procurement questions regarding specific requirements germane to each Chief of Contracting Office (COCO) and marketing capabilities.

CONTACT US:
openforbusiness@uscg.mil

FOLLOW US:
“USCG Contracting Enterprise”
Branch Chief: CDR Jeff Lynch

Branch Functions

- Overall lead for C3CEN shared service policy and processes
  - **PMO Section:** Project Management & Requirements services
  - **Technical Services Section:** Focus on providing shared services via central contract tasks for writers, CAD/drafting, Logistics management, RCM analysis, cell phones, remote access, etc.
  - **IV&V Section:** Independent testing of C3CEN products before release (acceptance testing)
  - **Information Assurance Section:** C3CEN shared information security specialists via a contract for IA tasks

Current Focus Areas

- Overseeing Project Management, System Engineering Life Cycle, and improving requirements development
- Business process management
- Integrated shared services processes and services
Branch Chief: CDR Jessica Fant

Branch Organization
- Depot level screening/repair and logistical support of electronics systems of Mandatory Turn-in (MTI) equipment
- Branch Sections:
  - Navigation Support
  - Communications Support
  - Inventory and Controls

Current Focus Areas
- Increase repair quality for supported items and system expansion:
  - **RADAR:** SPS-73 Legacy, Tech Refresh, SINS, SPS-50 and SPS-78 Radars
  - **HF:** URG III, TMR-90, RT-9000 and MICOM 3T HF tranceivers
  - **DGPS:** Repair and customization: Nautel transmitter, Nationwide Control Station and Automated Tuning Unit
  - **COMPUTER:** Repair and customization: SeaWatch, SparkStar (Gulfcoast) and Flight Deck Video System (FDVS)
  - **COMMS:** VHF/UHF Radio repair and developing Intrinsically Safe capability
- Complete qualifications to become a 2M certified repair facility
Command Logistics Contact Information

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Command Logistics Division Chief
(757) 686-4089
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Asset Lines

- **Fixed:** Shore side remote communications and control systems
  - (6) Remote Communications Facilities
  - (5) Remote HF
  - (4) Remote MF NAVTEX
  - High Powered Transmitters/Receivers
  - Transmission paths, Antennas
  - Control Software / Systems
  - Private Wide Area Network

- **Mobile:**
  - Mobile Communication Vehicles (MCVs)
  - Enhanced Mobile Incident Command Posts (eMICP)
COMMCOM/RCF Locations
Future Focus Areas

- Validate requirements and right-size fixed infrastructure (transmitters, receivers, etc.)
- Upgrade Communications Station Automation System (CSAS) control system
- Review Security & Environmental Monitoring Requirements
- Expand COTHEN HF Coverage in Alaska
- Establish new HF site in Fairbanks Alaska
- Upgrade MCV communications systems
- Re-establish eMICP capabilities
Contact Information

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ENS Curt Smith
Mobile Assets
(757) 686-6728
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Remote Mission Systems Product Line

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CDR Chris Wolfer
Remote Mission Systems

- **Asset Lines**
  - Rescue 21 - (Coastal, Western Rivers & Alaska)
  - NAIS
  - DGPS

- **Product Line Goals**
  - Deliver and maintain fixed facility VHF communications systems
  - Provide nationwide automatic identification of vessels in harbors & harbor approaches
  - Provide electronic aids to navigation support throughout the Coast Guard

- **Future Focus Areas**
  - Promote open market competition support for sustainment & engineering efforts
  - Replace obsolete subsystems & Cyber compliance
### RMS Services

<table>
<thead>
<tr>
<th>System</th>
<th>R21-Coastal</th>
<th>R21-Western Rivers</th>
<th>R21-Alaska</th>
<th>NAIS</th>
<th>DGPS</th>
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<tbody>
<tr>
<td># Remote sites &amp; Coverage Area</td>
<td>258 sites; 296,000 sq NM</td>
<td>51 sites; 3,002 RM</td>
<td>33 sites; 60,000 sq NM</td>
<td>134 sites across 58 major ports; 11 waterways</td>
<td>33 sites; 100 NM CONUS, AK, &amp; HI</td>
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<tr>
<td>Services Provided</td>
<td>- VHF/UHF Command, Control Comms</td>
<td>- VHF Command, Control, Comms</td>
<td>- VHF Command, Control, Comms</td>
<td>- Real time monitoring of AIS-equipped vessels</td>
<td>- Digital correction for GPS signal</td>
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<tr>
<td></td>
<td>- Direction Finding</td>
<td>- Digital Selective Calling</td>
<td>- Digital Selective Calling</td>
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<td>- Digital Selective Calling</td>
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Remote Mission Systems
Contact Information

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RMS Product Line Manager
(757) 483-8637
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LCM Rich Mooney
Rescue 21
(757) 295-2265
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LCDR Brandi Elmore
NAIS/DGPS
(757) 686-2128
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Command Centers Product Line

C3CEN Industry Day 2018
CDR Justin Noggle
Command Centers

• Asset Lines
  ◦ Tactical Command Centers (37 Sectors/10 VTS)
  ◦ Strategic Command Centers (9 District/2 Area/2 MIFC/HQ)

• Product Line Goals
  ◦ Consolidate user interface environment to improve operational users’ efficiency and effectiveness
  ◦ Leverage enterprise service bus data delivery to share all system data across the Enterprise Mission Platform
  ◦ Converge port specific sensor based systems (VTS/NAIS/R21)
  ◦ Reduce sustainment costs while maintaining operational availability

• Future Focus Areas
  ◦ GIS/Common User Environment utilizing Ozone Widget Framework optimized for mobile & low bandwidth applications
  ◦ Leverage SOA (service oriented architecture) and the use of micro-services to expand delivery/consumption across the enterprise
  ◦ Virtualize hardware utilizing container technologies & leverage cloud solutions
  ◦ Develop using Agile to expedite delivery of capability
Command Centers Contact Information

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Navigation Core Technology

C3CEN Industry Day 2018
CDR Ben Goff

Command, Control, and Communications Engineering Center
Sustaining the Present... Developing the Future
Navigation - Structure

- **Asset Lines**
  - ADF/AIS/Radar
  - Electronic Navigation
  - Optics
  - SINS/Depth Sounders/GPS

- **Systems**

- **Architecture Goals**
  - Consolidate small boat and cutter navigation systems to scalable standard variants
  - IEC 61174 & IMO ECDIS Certified Hardware
  - Open source data formats (NIEM, NMEA, etc.) for integration into larger C4I architecture
  - Radar Data Communications Open Protocols (Asterix, NMEA OneNet)
Navigation - Functions

• **Sustainment Goals**
  ◦ To find the most cost-effective way to repair and keep aging systems operational
  ◦ Balance organic, commercial, solutions to fight obsolescence and enhance integration
  ◦ System consolidation to improve logistics efficiencies
  ◦ Harden systems in accordance with DOD & DHS Information Assurance Directives

• **Technology Challenges**
  ◦ Integration (newer systems becoming more software-focused with no hardware)
  ◦ Fighting Diminishing Manufacturing Sources and Material Supplies

• **Future Thinking**
  ◦ NMEA 2000, changing international standards (AIS/VDES, LRIT, GPS/GNSS)
  ◦ Improved sustainment efforts including recapitalization of obsolete systems
Navigation – Future Thinking

- **ADF/AIS/Radar**
  - Continue next generation Automatic Radio Direction finder market research
  - Deploy AIS firmware upgrade and AIS-2 to fleet across 2000 vessels
  - Evaluate surface search radar for renewal
- **Electronic Navigation**
  - Windows 10 deployment and sustainment (both SHB & LTSC)
  - Cybersecurity Compliance
  - Operating System Alternatives for Nav System Architecture
- **Optics**
  - Identify & procure next generation small boat Electro-Optics/InfraRed
  - Identify & procure next generation cutter Electro-Optics/InfraRed
  - Conduct shipboard security CCTV camera system market research
- **SINS/Depth Sounders/GPS**
  - Deploy SINS-2 across 2,000 cutters and small boats
  - Deploy the Furuno DS-60 Doppler Speed Log across 181 vessels
Navigation Contact Information

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Navigation Core Technology Manager
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Command and Control Core Technology

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CAPT Brian R. Anderson
Objective: Deliver complete life cycle logistics for C2 and ISR systems aboard cutter and aircraft meeting customer/sponsor requirements, while maximizing the system availability at an affordable cost

Systems: SSA/SDA for 35 systems across 9 cutter classes totaling 130 cutters and on 3 aircraft models, totaling 47 airframes

Support: Composed of four asset lines supporting Surface Forces and Aviation Product Line Managers in the following areas:
- C2 Afloat
- C2 Aviation
- Intelligence Systems & Biometrics Afloat
- Navy Type Electronics
C2 - Future Focus Areas

• Development
  ▪ Tactical Data Link C2 Integration (both Link 16, other RF methods and TCP/IP based)
  ▪ Continuous Monitoring Capability
  ▪ Automated Testing and Deployment Solutions

• Technology
  ▪ Biometrics Software Solutions
  ▪ Small Boat Data Transfer (Share Parent C2 Info)
  ▪ Cost Effective, One-Way Cross Domain Solutions
  ▪ Minotaur Aviation Mission System (AMS) for all airframes

• Support
  ▪ Navy-Type Coast Guard-Owned Equipment Support
  ▪ Platform IT Cyber Security
  ▪ Agile Development and Virtualization Support
Command & Control Contact Information

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Communications Core Technology

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CDR Chad Cooper
Core Technology Manager: CDR Chad Cooper

Core Technology Goals

• Increase asset visibility and improve configuration management across the fleet.

• Reduce the variance in supported radio technologies to reduce:
  * Support cost for supply and supply change management
  * Complexity for operator training
  * Complexity for technician training
Future Focus Areas

• Research, procure & implement next generation short range communications technology w/ focus on deploying easily programmable, interoperable multi-band tactical systems.

• Research, procure & implement next generation HF radio system ashore & afloat w/ focus on scalability & wideband technologies to enable data exchange & more reliable communications.

• Research, procure & implement next generation wireless boat crew communications system to provide a secure & radio agnostic crew communications solution in a salt water environment.

• Transition MILSATCOM systems to Multiple User Object System (MUOS).
Communications Contact Information

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(757) 483-8572
Chad.W.Cooper@uscg.mil
Conclusion