



Command, Control, and Communications Engineering Center (C3CEN)

C3CEN Industry Day 2018

CAPT Michael F. Nasitka
Commanding Officer



Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

C3CEN: Who are we?

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 **P**ride, give **R**espect, take **O**wnership*



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



***Detect, identify,
classify,
distribute,
correlate, and
manage tracks
across all
domains and
platforms***

- ☐ 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



Transmission and Display of Mission Data: Getting Underway Checklist



Transmission and display of mission data across all platforms and unit types such as SAR patterns, overlays, law enforcement data, navigation data, TOIs, ISR, near real-time infrastructure status

- ☐ 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





Acquisition Directorate

By the Numbers.....

**FY 18 Dollars
\$3.4B**



FY 18 TOP 5 NAICS

NAICS	\$'s
336611 SHIP BUILDING AND REPAIRING	\$1.1B
541330 ENGINEERING SERVICES	\$234M
336413 OTHER AIRCRAFT PARTSEQUIPMENT MANUFACTURING	\$172M
541611 ADMINISTRATIVE MANAGEMENT CONSULTING SERVICES	\$144M
541512 COMPUTER SYSTEMS DESIGN SERVICES	\$106M

FY 18 SB Achievements

Category	Achieved
Total SB	40.21%
SDB	16.20%
WOSB	6.43%
SDVOSB	5.12%
HUBZone	4.43%

FY 18 TOP 5 PSCs

1990 MISCELLANEOUS VESSELS
1905 COMBAT SHIPS AND LANDING VESSELS
R425 ENGINEERING TECHNICAL SUPPORT
J016 MAINT/REPAIR OF EQUIPMENT
D399 IT AND TELECOM



UNITED STATES COAST GUARD Chiefs of Contracting Office

Who and Where are We?

SILC-Construction
Seattle, Washington

COCO(d)-Mark Snell

Surface Forces Logistics Center
Baltimore, Maryland

COCO-Mille Figueroa
COCO(d)-Thomas Fout

CG-912
Washington, DC

COCO-Jennie Peterson
COCO(d)-Andrew Camington

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-Orle Davis

SILC-BSS
Norfolk, Virginia

COCO-Mia 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 Calton

As of 12/05/2017



Acquisition Directorate

Chief of Contracting Offices (COCO) Areas of Responsibilities (AORs)

Office of Contract Operations (CG-912)

Support
Acquisitions for:

- ❖ CG HQs
- ❖ C4IT
- ❖ Aircraft Major
Systems
- ❖ Marine Vessel
Major Systems

Aviation Logistics Center (ALC)

Support
Acquisitions for
Aviation Fleet:

- ❖ Engineering
- ❖ Supply
- ❖ Logistics
- ❖ Depot
Maintenance

Command, Control, Communications, Computer & Information Technology (C4IT)

Support
Acquisitions for
C4IT Service
Center:

- ❖ IT Operations
and
Maintenance
- ❖ Hardware
- ❖ Software
- ❖ IT Services

Shore Infrastructure Logistics Center- Construction (SILC-CON)

Support
Acquisitions for
shore
infrastructure:

- ❖ Construction
- ❖ Architecture
- ❖ Engineering

Shore Infrastructure Logistics Center- Base Support (SILC-BSS)

Support
Acquisitions for
Base Operations:

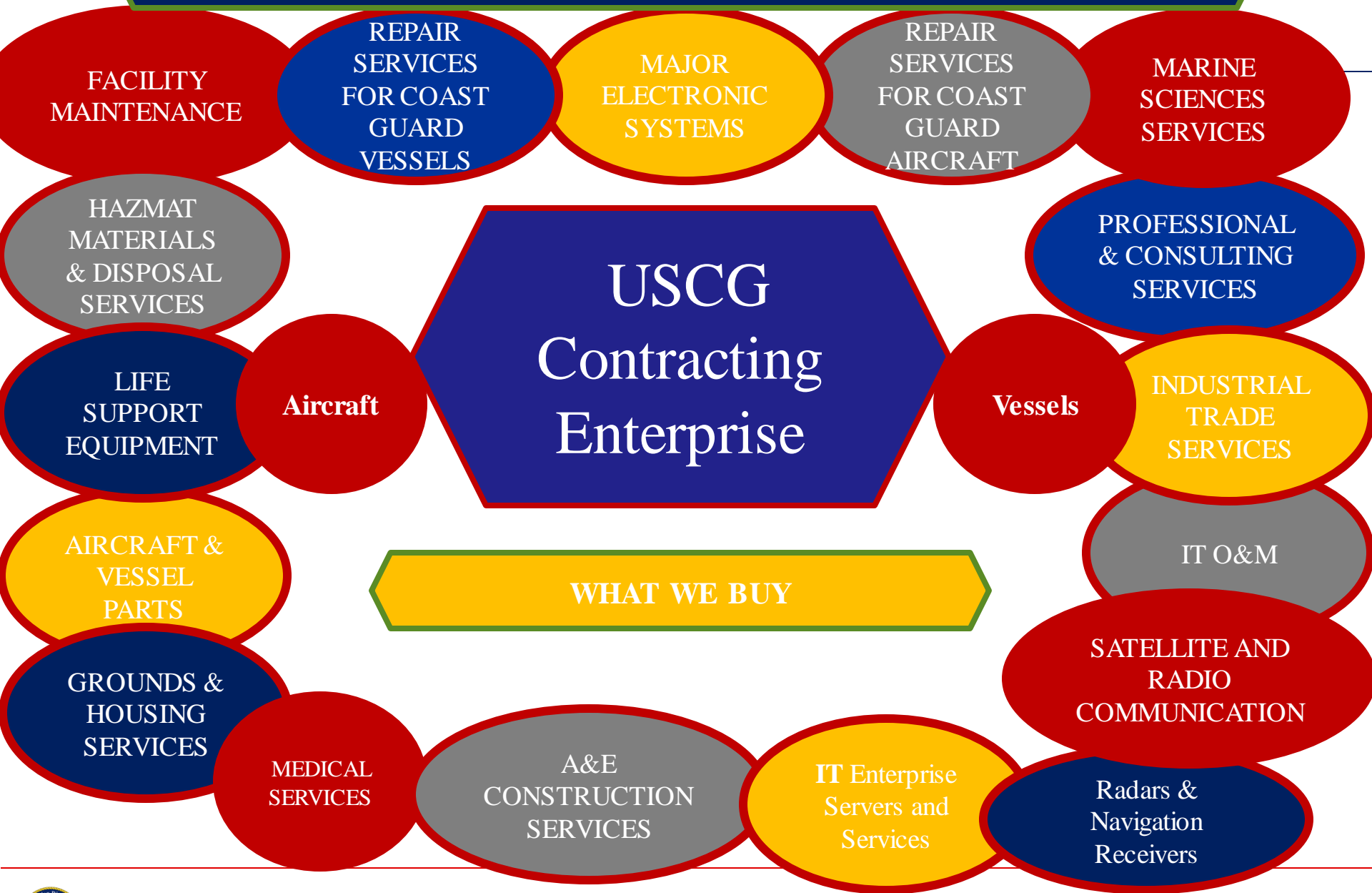
- ❖ Supplies
- ❖ Services

Surface Forces Logistics Center (SFLC)

Support
Acquisitions for
Fleet:

- ❖ Engineering
- ❖ Supply
- ❖ Logistics
- ❖ Depot
Maintenance

THE USCG BUYING CONTINUUM



DHS Strategic Sourcing Directive* & USCG Contracting Enterprise Spend Analysis

% of \$'s Spent

OASIS

51.3%

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

PACTS II

1.5%

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

EAGLE II

9.3%

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

TABSS

14.6%

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

Architecture and Engineering Services II

16.5%

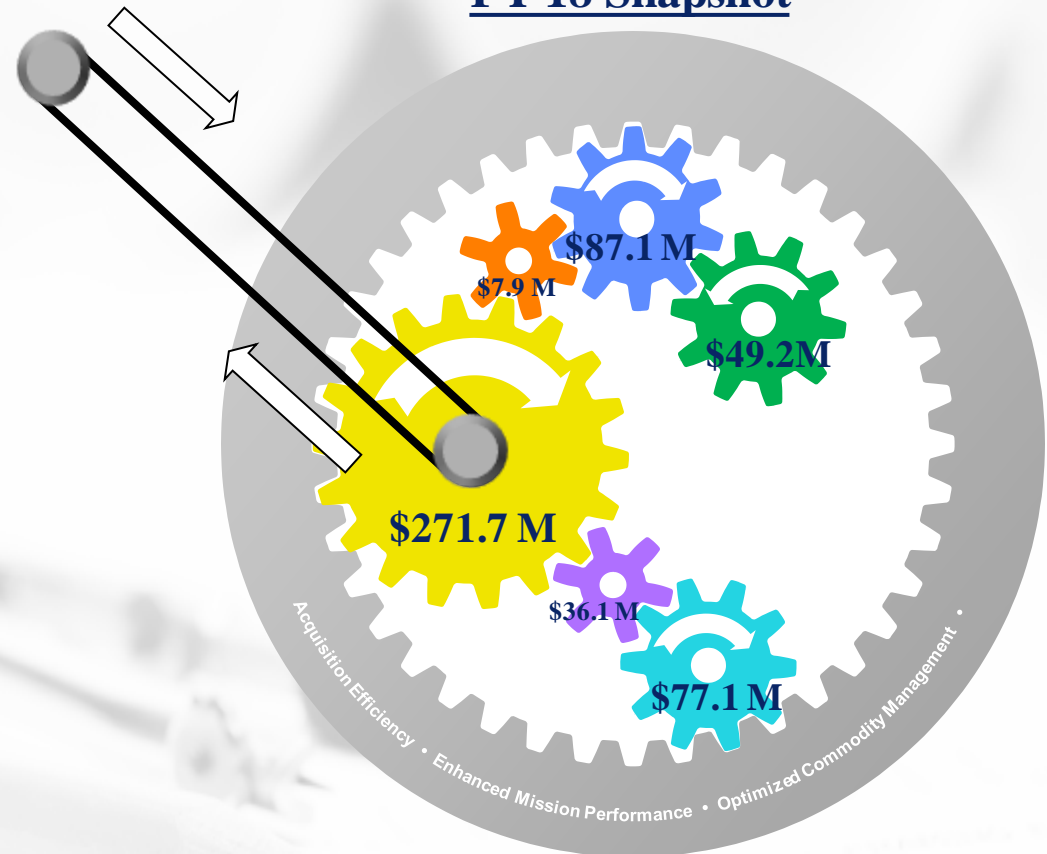
Scope: Architectural Engineering services IDIQ

First Source II

6.8%

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

FY 18 Snapshot



Total \$'s Spent:
\$529.3 M

KEY TAKEAWAYS FOR DOING BUSINESS WITH USCG

Accessibility:

- ❖ Understand the various strategic sourcing vehicles that USCG utilizes for acquisition efficiency and leverage these vehicles for business development

Capability:

- ❖ Understand your company's core capabilities and hone in on your capabilities to meet the USCG's business needs



Transferability:

- ❖ Understand your variety of past performance(s) and demonstrate through proposal responses how it applies to the USCG business needs

DHS Acquisition Planning Forecast System (APFS)

Home | Acquisition Planning Forecast System - Windows Internet Explorer provided by U.S. Coast Guard


UNCLASSIFIED

http://apfs.dhs.gov/

Acquisition Planning Forecast System

Contact Us Government Users

How to find USCG projected procurement opportunities



Welcome

The Department of Homeland Security Acquisition Planning Forecast System provides a way for small business vendors to view a forecast of upcoming opportunities. The system has recently been upgraded to a new version which is designed to be easier to use.

[Download The APFS Tutorial](#)

Forecast

The DHS purchases a wide variety of goods and services and we are committed to small business participation in our acquisition program. We hope that this forecast will assist you in doing business with DHS. By helping firms identify procurement opportunities as early in the acquisition process as possible, we hope to improve communication with industry and assist the small business community with its marketing efforts.

[Search Forecast](#)

About

The Department of Homeland Security (DHS) Forecast of Contract Opportunities includes projections of all anticipated contract actions above \$150,000 that small businesses may be able to perform under direct contracts with DHS, or perform part of the effort through subcontract arrangements with the Department's large business prime contractors.

[Learn More](#)

NAICS Notification

Vendors seeking to track upcoming DHS opportunities can register to be notified when records are published to APFS. An internet email address is required for subscription to NAICS-based notification.

[Get Notified](#)

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<http://apfs.dhs.gov/>

http://apfs.dhs.gov/about

Start | Inbox - Microsoft Out... | RE: SAME Presentatio... | RE: Maintenance Whit... | IF then statements - ... | New CEU Miami SFCO ... | SAME | Microsoft PowerPoint ... | Home | Acquisition... | Document1 - Microsof... | 10:41 AM



USCG SMALL BUSINESS PROGRAMS

CONTACT US:

openforbusiness@uscg.mil

OPEN
FOR
Business

FOLLOW US:

“USCG Contracting
Enterprise”

Linked in

Find Business Opportunities

- Check out current and future **contract opportunities** with the Coast Guard.
- Get assistance, contact information, and resources for **small businesses**.
- Check out opportunities to partner with the Coast Guard on **research and development projects**.
- Learn more about international business opportunities thru the Coast Guard's **foreign military sales program**.

Upcoming Events

Surface Forces Logistics Center:
May 16, 2018, at the Coast Guard Yard in Baltimore.

Shore Infrastructure Logistics Center - Base Support and Services (TENTATIVE):
June 6, 2018, in the Alameda, California, area.

Resources

- Doing Business Fact Sheet



Acquisition Directorate
Procurement Policy & Oversight

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.



Command Logistics Division

C3CEN Industry Day 2018

CDR Jeff Lynch



Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

Engineering Services

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

Engineering Services Functions



PMO
Tech Services
IV&V
ISSO



Electronics Repair Facility (ERF) Baltimore

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 transceivers
 - **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

ERF Functions



Test & Repair
QA/Functional Screening
C3CEN Liaison
TCTO Assistance
Equipment Removal &
Installation
Equipment Configuration
Technical Assist
Packaging/Logistics
Custom Configure



Command Logistics Contact Information

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Command Logistics Division Chief

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Communications Area Master Station (CAMS) Product Line

C3CEN Industry Day 2018

CDR Dennis Good



Command, Control, and Communications Engineering Center

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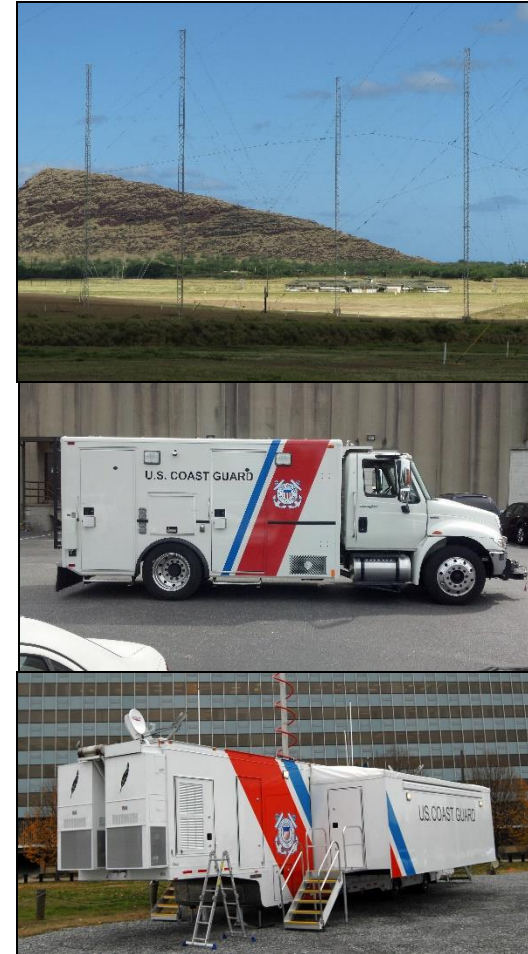
Asset Lines

➤ **Fixed:** Shore side remote communications and control systems

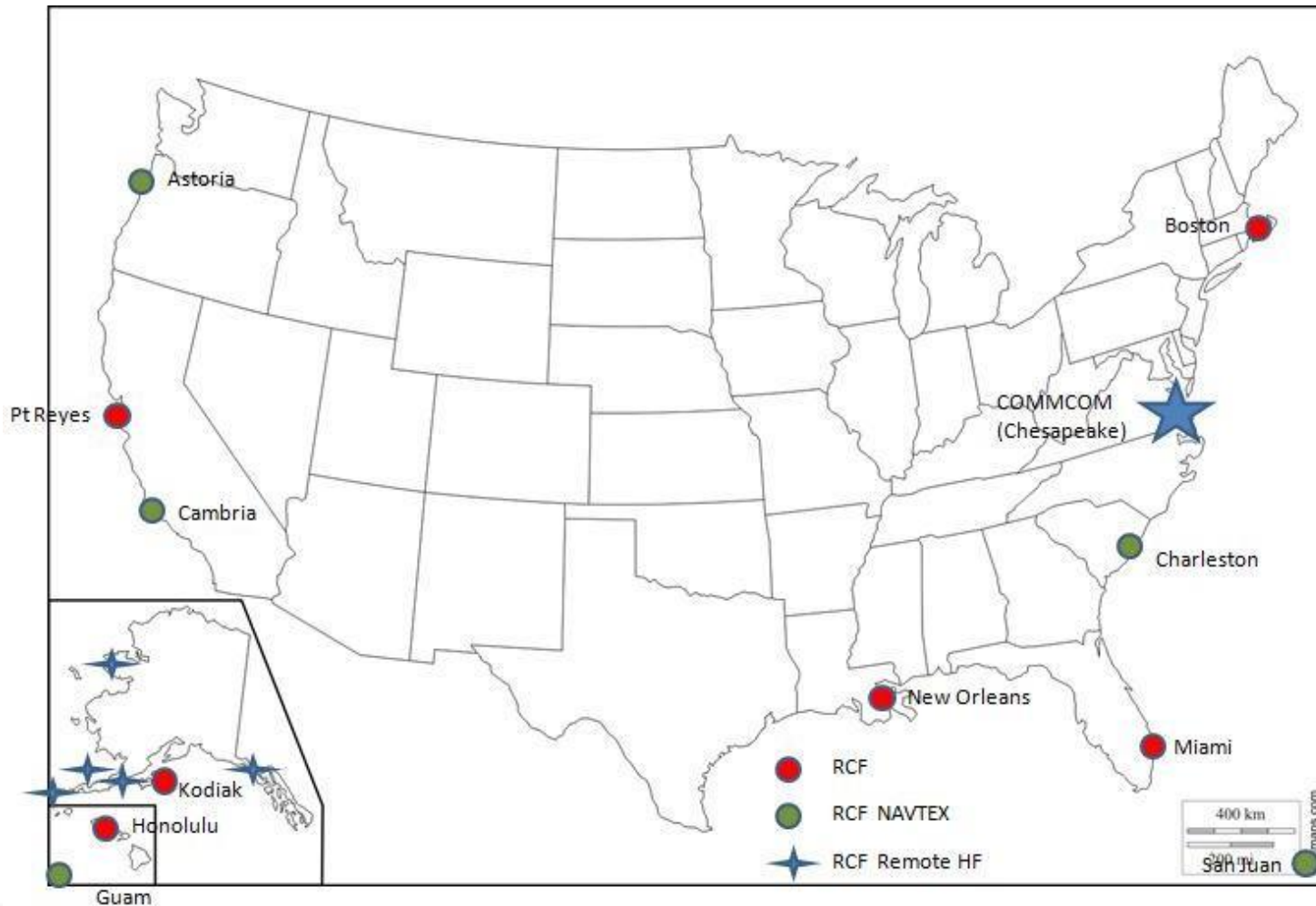
- (6) Remote Communications Facilities
- (5) Remote HF
- (4) Remote MF NAVTEX
- High Powered Transmitters/Receivers
- Transmission paths, Antennas
- Control Software / Systems
- Private Wide Area Network

➤ **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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Remote Mission Systems Product Line

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CDR Chris Wolfer

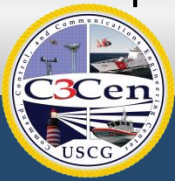


Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

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



Rescue 21: Coastal, Alaska & Western Rivers

NAIS: Nationwide Automatic Identification System

DGPS: Differential Global Positioning System



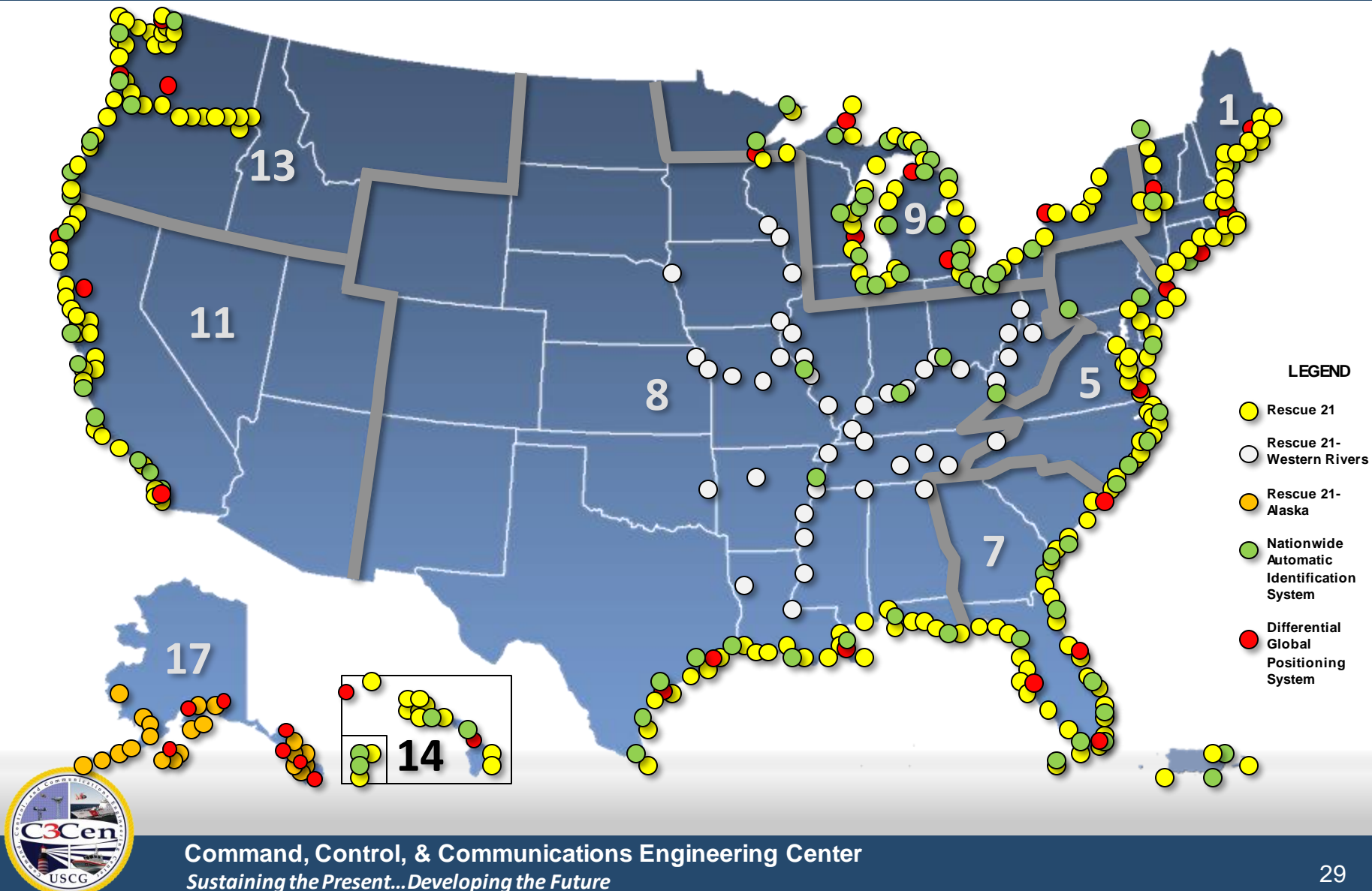
RMS Products

RMS Services

System	R21-Coastal	R21-Western Rivers	R21-Alaska	NAIS	DGPS
Area of Operations:	Continental coast, Great Lakes & Islands	Mississippi & Ohio Rivers & major tributaries	Alaska coast	Continental U.S., HI, AK, Guam, & Puerto Rico.	Continental U.S., HI & AK.
# Remote sites & Coverage Area	258 sites; 296,000 sq NM	51 sites; 3,002 RM	33 sites; 60,000 sq NM	134 sites across 58 major ports; 11 waterways	33 sites; 100 NM CONUS, AK, & HI
Services Provided	<ul style="list-style-type: none"> - VHF/UHF Command, Control Comms - Direction Finding - Digital Selective Calling 	<ul style="list-style-type: none"> - VHF Command, Control, Comms - Digital Selective Calling 	<ul style="list-style-type: none"> - VHF Command, Control, Comms - Digital Selective Calling 	<ul style="list-style-type: none"> - Real time monitoring of AIS-equipped vessels - Virtual ATON 	<ul style="list-style-type: none"> - Digital correction for GPS signal



RMS Locations



Remote Mission Systems

Contact Information

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LCDR Rich Mooney

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Command Centers Product Line

C3CEN Industry Day 2018

CDR Justin Noggle



Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

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



GCCS-J: Global Command and Control System – Joint

COP: Common Operational Picture

CG1V: Coast Guard One View

C2PC: Command and Control Personal Computer

SAROPS: Search and Rescue Optimal Planning System

CCDS: Command Center Display System

PAWSS: Ports and Waterways Safety System



User Links



Contact Info



Profiles



Mission List

OPS Map
Controller

Alert Feed



Esri Map

Catalog
Widget

DCS Chat

Service
Manager...

Timezones



SAR Injector

Latitude
0° 0' 0" N

Longitude
0° 0' 0" E

Summary

Summary

Category

Aids to Navigation

Status

Planned

Catalog Widget

Master Service Catalog

OPERATIONAL

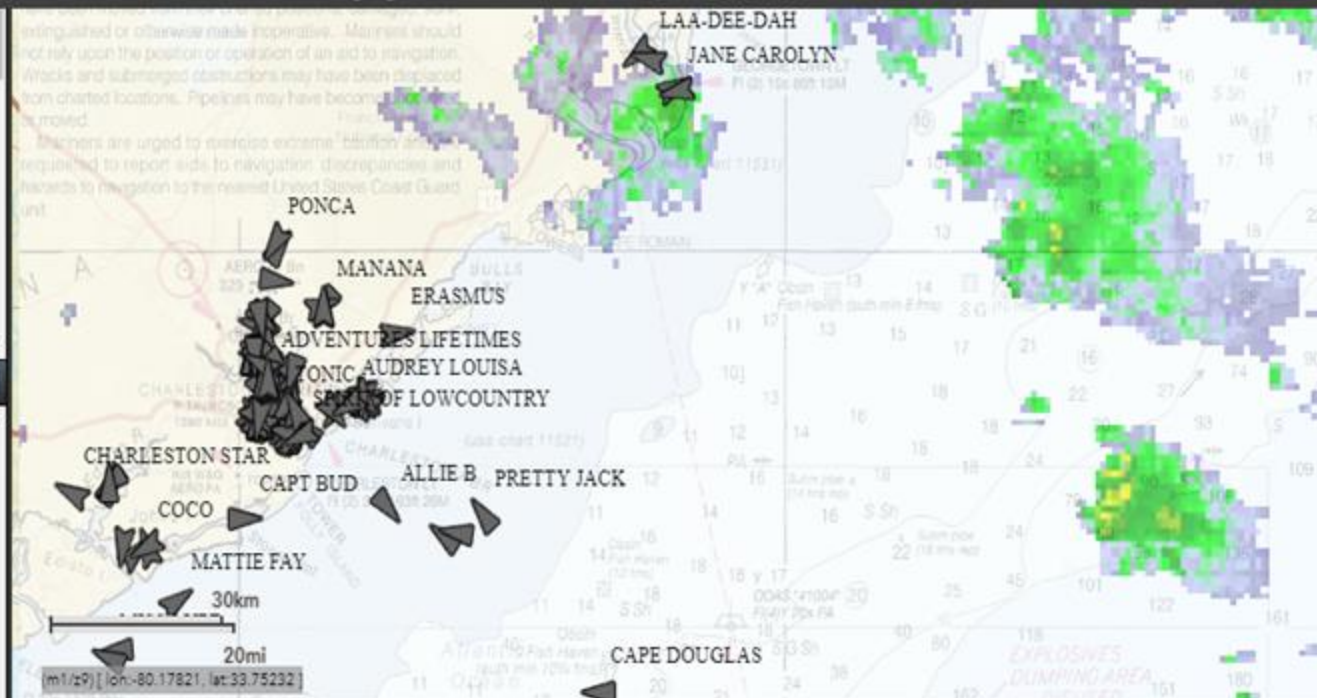
REFERENCE

TRACKS

WEATHER

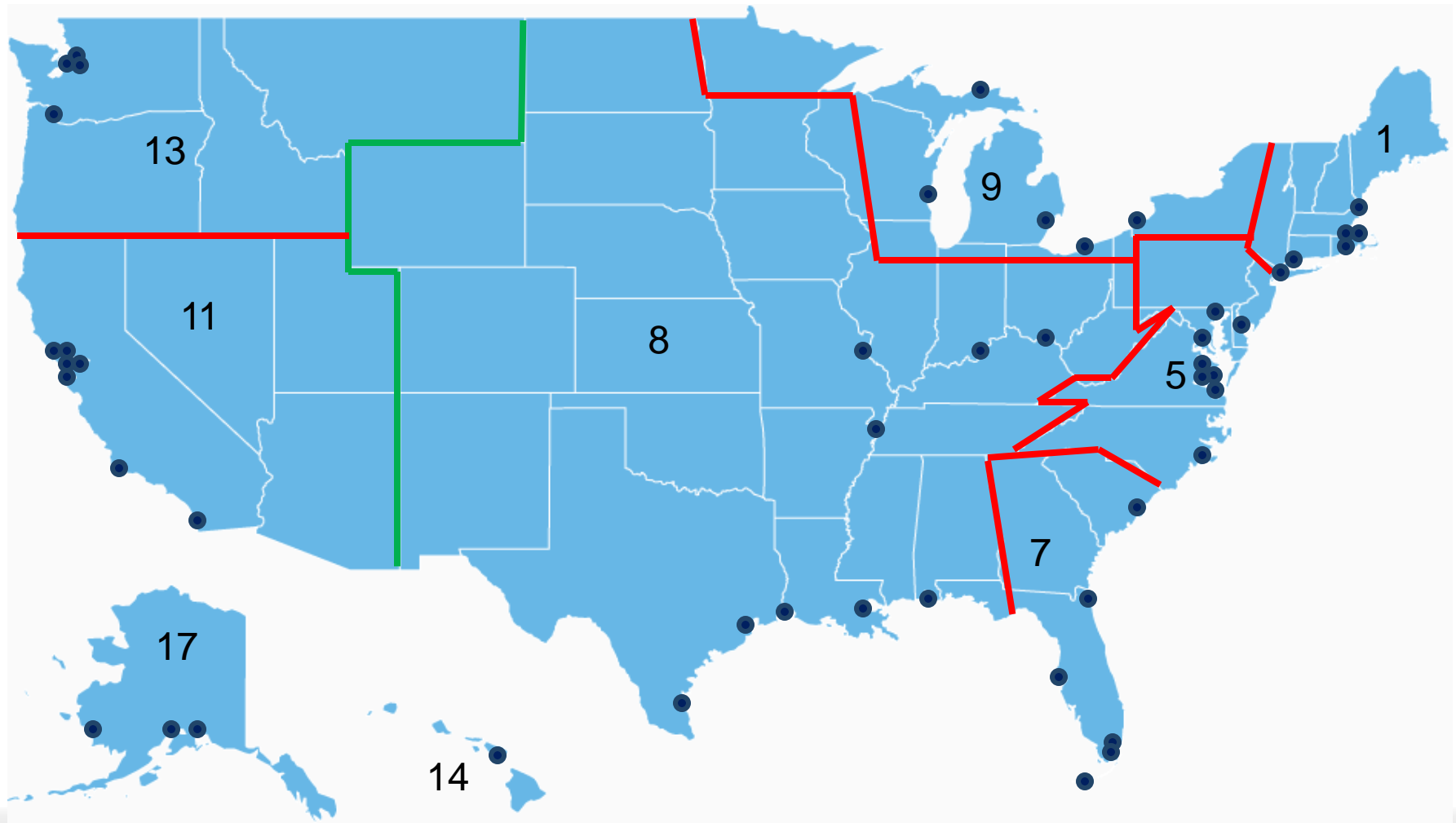
☐ Coastal Marine Zone *☐ Fire Zone *☐ High Seas Zone *☐ Offshore Marine Zone *☐ Surf Zone *

Forecasts

☐ Air Quality Index *☐ Coastal Marine Zones *☐ Forecast Discussions *☐ Harmful Algae Bloom *☐ NEXRAD RIDGE Radar *

Search Profiles								
test								
SEARCH								
Sort By Start Time								
Show Filters								
CATEGORY	STATUS	LAT/LONG	ID	START	END	MISLE	UNIT	TITLE
	OPEN	29° 8' 13.15" N 80° 21' 56.36" W	M-20181016-c49d5	10/15/2018, 8:27:00 PM		1150067	LANT AREA	DETAILS
	PLANNED	27° 38' 30.08" N 82° 47' 3.38" W	M-20180821-f709d	8/20/2018, 11:59:00 PM	8/21/2018, 12:00:00 AM		SECTOR ST PETERSBURG	XX TEST POLLUTION... DETAILS
SECTOR SAN HUAN								
1 - 3 of 3 items								

Command Centers



Command Centers Contact Information

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Command Centers Product Line Manager

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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**

- E-Nav, GPS, AIS, Surface Search Radar, Depth Sounder, Speed Log, Radio Direction Finders, Scalable Integrated Navigation System, Electro-Optics/InfraRed

- **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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Command and Control Core Technology

C3CEN Industry Day 2018

CAPT Brian R. Anderson



Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

Command and Control Overview

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

C3CEN Industry Day 2018

CDR Chad Cooper



Command, Control, and Communications Engineering Center

Sustaining the Present...Developing the Future

Communications

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

COMMSCT Asset Lines



VHF/UHF Systems

MILSATCOM

MF/HF Systems

Integrated Comms

Comms Services



Communications

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).



VHF/UHF Systems

MILSATCOM

MF/HF Systems

Integrated Comms

Comms Services

Communications Contact Information

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Conclusion

