Space and Naval Warfare Systems Center Atlantic
Fleet C4I And Readiness Department

Tidewater Association of Service Contractors
SSC ATLANTIC INFORMATION DAY
An Event Facilitated by TASC
11 October 2018

Mr. Charlie Adams
SSC Atlantic
Fleet C4I & Readiness Department Head
Fleet C4I & Readiness Department Mission

The Fleet C4I & Readiness Department delivers:

- Engineered (Design, Develop, and Test) new C4ISR capabilities that give our Fleet an advantage over adversaries.
- Integrated C4ISR systems into the US Navy’s newest and most advanced ships and submarines.
- Installed C2, Intel, Communications, Networks, and Applications for the Fleet. C4ISR systems integrated into the US Navy’s newest and most advanced ships and submarines.
- Supported Fleet C4ISR Systems to maintain Operational Availability and Lifecycle Engineering.

We are the solutions provider for mission critical information warfare!
Thrust Area 1: Tactical Cyber Warfare Solutions

Key Technology Areas:
- Cyber Warfare, Big Data Technologies

Goal: Deliver cyber warfare solutions at the speed of technology innovation to enable the Fleet to defend tactical networks and provide offensive cyber warfare capabilities (apps/tools).

Thrust Area 2: Navy Tactical Software Development

Key Technology Areas:
- Big Data Tech, Cloud Computing

Goal: Enable modern IT Service Delivery technologies including system and network virtualization and cloud based solutions afloat as the Navy’s Tactical Cloud Software Developer.

Thrust Area 3: Integrated C4I Solutions

Key Tasks:
- Design, Integration, Production, Installation, Test & Evaluation

Goal: Leverage Ship New Construction C4I engineering, design, integration and installation expertise to deliver state of the art information Warfare capabilities to the Fleet.

Thrust Area 4: Electromagnetic Maneuver Warfare

Key Technology Areas:
- Big Data Technologies, Cloud Computing, Cyber Warfare, Assured Communications

Goal: Lead and provide critical engineering resources to Electromagnetic Maneuver Warfare/Integrated Fires (EMW/IF) architecture and system development.

Thrust Area 5: Assured Position, Navigation & Timing

Key Technology Areas:
- Cyber Warfare, Big Data Technologies, Assured Communications

Goal: Position to be the Navy’s technical Subject Matter Experts in Maritime Assured Position, Navigation and Timing (PNT) by focusing on projects that ensure continuous and reliable PNT.
Singularly focused on PMWs & Fleet Readiness

Fleet C4I & Readiness Department (PMW 100’s and 700’s)

- Single focused on the Fleet
- Single POC for all PEO C4I PMW’s
- Consolidated accountability
- Consistent SSC Atlantic voice/message
- Single source of situational awareness
- Clear reporting relationships
- PORs C/S/P Focus - Deliverables
- Readiness and installation execution

Customer Areas

- PMW 120
- PMW 130
- PMW 150
- PMW 160
- PMW 170
- PMW 740
- PMW 750/760
- PMW 770
- PMW 790
- FRD 100/200
- NAVSEA
- NAVAIR
- USCG
- Navy Cyber/Numbered Fleet

Statement A: Approved for public release; distribution is unlimited (5 October 2018)
What We Do
- Deliver and sustain Command and Control (C2) products and services to naval warfighters.

Major Systems
- Naval Tactical Command Support Systems (NTCSS)
- Maintenance Figure of Merit (MFOM)
- Global Command and Control Systems–Maritime (GCCS-M)
- Global Command and Control System–Joint (GCCS-J)
- Global Theater Security Cooperation Management Information System (G-TSCMIS)
- Naval Air Operations Command and Control (NAOC2)
- Air Defense System Integrator (ADSI)
- LINK-11
- Link Monitoring and Management Tool (LMMT)
- Afloat Readiness Reporting System (ARRS)

FY18 TOA: $65.1M

Primary Customers
- PEO C4I PMW 150
- Fleet Readiness Directorate (FRD)

Support includes assisting in transforming operational needs into effective and affordable operational and tactical C2 capabilities.
Command and Control Future Opportunities — Challenges Where Industry Can Help

Future Opportunities/Growth

- Develop Cloud-based Enterprise System solutions with disconnected operational requirements
- PMW 150 Future Systems – Naval Operational Business Logistics Enterprise (NOBLE) FY19-24
  - Naval Operational Support System (NOSS)
  - Naval Aviation Maintenance System (NAMS)
  - Naval Operational Maintenance Environment (NOME)
- DEVOPS Infrastructure and process automation
- On-demand software distribution to remote platforms (Navy App Store)

Where Industry can Help

- Develop Cloud-based DEVOPS infrastructures and automated processes for software development, testing, configuration management, builds and deployment. (Windows and Unix)
- Identify and develop processes and products to automate regression testing during software development
- Identify methods to monitor and report systems’ health and measure system/component tripwires
- Identify ways to reduce the number of CASREPs and Fleet Support issues
- Automate SOVT information and tests
What We Do

- Rapidly deliver integrated wide area, local networking and foundation computing systems products and services to naval warfighters.

Major Systems

- Consolidated Afloat Network Enterprise Systems (CANES)
- Automated Digital Network System (ADNS)
- Integrated Shipboard Network Systems (ISNS)
- Combined Enterprise Regional Information Exchange System (CENTRIXS)
- Core Enterprise Services (CES)
- Application Integration

FY18 TOA: $69.1M

Primary Customers

- PEO C4I PMW 160
- Fleet Readiness Directorate (FRD)

Support includes delivering effective, robust and cost-efficient networks for Navy tactical forces.
Afloat Network Systems Future Opportunities — Challenges Where Industry Can Help

Future Opportunities/Growth
- DevOps, SecDevOps
- SoS Integration
- Cybersecurity Compliance to include Risk Management Framework (RMF)
- COTS Software, Automation, Integration, Installation and Sustainment
- Software Defined Networking and Software Networks
- Proactive Sustainment
- Systems Management

Where Industry can Help
- Technology
- Solutions
- Professionals
What We Do

- Rapidly deliver assured, resilient communications and Position, Navigation and Timing (PNT) products and services, to enable information warfare capabilities for maritime. Provide Subject Matter Experts (SMEs), Test and Acquisition Support for waveforms being developed for use within the battlefield.

Major Systems

- Navy Multiband Terminal (NMT)
- Global Broadcast System (GBS)
- Commercial Broadband Satellite Program (CBSP)
- Digital Modular Radio (DMR)
- Battle Force Tactical Network (BFTN)
- GPS-based Positioning, Navigation and Timing Service (GPNTS)

FY18 TOA: $101.3M

Primary Customers

- PEO C4I PMW 170
- Fleet Readiness Directorate (FRD)
- PEO C3T (PM Tactical Radios; PM Network Enablers)
- PEO Missiles and Space

Support includes MILSATCOM and COMSATCOM engineering services and support to the Fleet.
Future Opportunities/Growth

- SATCOM Systems
- Software Defined Radio Systems
- PNT Systems

Where Industry can Help

- Technology
- Solutions
- Professionals
Submarine Integration Division Overview (PMW 770) David Bednarczyk – (Mike Smith presenting)

▼ What We Do
- Delivers C5I capabilities and support to the Navy’s submarine and associated shore communications infrastructure during new construction and modernization.

▼ Major Systems
- Common Submarine Radio Room (CSRR)
- Submarine Operational Authority (SUBOPAUTH)
- Fleet Submarine Broadcast System (FSBS)
- Submarine Warfare Federated Tactical System (SWFTS)
  - Install and test system upgrades for Sonar, Combat Control, Imaging, ESM, and Radar
- C5I System and Weapons Shipping, Handling, Launching Systems Integrated Test Team (CWITT)
  - T&E for C5I systems for new construction submarines
  - Weapons, Shipping, Handling and Launchers

FY18 TOA: $143.8M

▼ Primary Customers
- PEO C4I PMW 770
- NAVSEA & PEO SUB
- Fleet Type Commanders

Providing strategic and tactical message origination to subsurface platform antenna to weapon delivery, including sensors; through design, procurement, integration, installation, test, sustainment and training efforts.
Submarine Integration Future Opportunities — Challenges Where Industry Can Help

Future Opportunities/Growth

- Advanced Simulated Training System
- 3-D technologies
- Simulated Tactile Applications
- Development of Engineering Tools for C5I T&E
- Cyber Security/Information Assurance

Where Industry can Help

- Technology
- Solutions
- Professionals
Shore C4I Integration Division Overview (PMW 790) Mark Luther

What We Do
- Designs, integrates, tests and delivers interoperable C4I infrastructure to support naval afloat, sub-surface, air platforms and shore network communications.

Major Systems
- Shore Tactical Assured Command and Control (STACC)
- Unified Capabilities Voice Solutions
- Defense Red Switch Network (DRSN)
- Maritime Operations Center (MOC)
- Command and Control Office Information Exchange (C2OIX)
- Automated Digital Network System (ADNS) Voice
- US Naval Observatory Precise Timing Networks

FY18 TOA: $68.2M

Primary Customers
- PEO C4I PMW 790
- NAVIFOR & other PEOs

Support includes integration of voice, video and data across shore infrastructure supporting deployed warfighters.
Shore C4I Integration Future Opportunities — Challenges Where Industry Can Help

Future Opportunities/Growth

- Automated Patching/IA compliance (Push technology)
- Cloud
- DEVOPS
- Cybersecurity Compliance to include Risk Management Framework (RMF)
- Telephony migration from Time Division Multiplexing (TDM) services to IP
- End-to-end secure voice/video communications across IP converged networks
- Bandwidth Efficient Voice Gateway

Where Industry can Help

- Technology
- Solutions
- Professionals
What We Do
- Provides direct fleet support after new platform delivery through the Fleet Support Office (FSO), fleet modernization through the FRD Installation Office (FIO), and fleet sustainment of system performance through the In-Service Engineering Agent (ISEA). Provides support to NAVSUP’s Performance Based Logistics (PBL) through its PBL Office (PBL-O) and DEPOT by refurbishing, repairing and re-engineering selected components, equipment and sub-systems for critical items no longer serviced by Other Equipment Manufacturers (OEM) providers.

Major Systems
- C4I Surface Modernization
- C4I Shore Modernization
- C4I Sub Modernization
- Fleet Support Services
- Installation Management Office
- Fleet Support Office
- PBLO / DEPOT

FY18 TOA: $350.1M
Primary Customers
- FRD 100
- FRD 200
- NAVSEA & PEOs
- NAVSUP

Support Fleet Modernization and provide In-Service Engineering Support.
C4I Modernization & Readiness Opportunities — Challenges Where Industry Can Help

Future Opportunities/Growth
- Afloat and Ashore C4I installation engineering
- Integrated testing approaches prior to installation

Where Industry can Help
- Design for “install ability”
- Execution of operations in a degraded communications environment
Questions?
Backup
(Other Divisions within the Department not intended to be briefed today, but for reference)
What We Do
- Deliver intelligence and information operations data, products and services that provide Information Warfare solutions for the fleet.

Major Systems
- PMW-120
  - Distributed Common Ground System – Navy (DCGS-N), ACAT IAM
  - Integrated Imagery & Intelligence (I3) Project - IMINT
  - Ship’s Signal Exploitation Equipment (SSEE), ACAT III
  - Cryptologic Carry-On Program (CCOP), Two AAP’s
  - Lifecycle IPT
    - Automated Identification System (AIS), ACAT IVT
    - Maritime Integrated Broadcast Service (MIBS)
    - Maritime Domain Awareness (MDA)
    - AN/URC-148 (V) ITSA

FY18 TOA: $80.3M

Primary Customers
- PEO C4I PMW 120
- Fleet Readiness Directorate (FRD)
- NAVSEA & PEOs

Support includes ISR/IO systems, engineering services and support to the Fleet.
Future Opportunities/Growth

- Cybersecurity Compliance to include Risk Management Framework (RMF)
- Innovation for Electromagnetic Maneuver Warfare (EMW) and Cyber Exploitation
- Intelligence Community Data Flows
- Data Analytics
- Artificial Intelligence
- Antenna Technology

Where Industry can Help

- Technology
- Solutions
- Professionals
IA & Navy Cyber Division Overview (PMW 130) Dave Johnson

What We Do
- Rapidly deliver cyber security products and services to ensure continued protection of Navy and joint information, tele-communications and information systems.

Major Systems
- Computer Network Defense (CND)
- Serial Crypto
- Electronic Key Management System (EKMS)
- Key Management Infrastructure (KMI)
- Public Key Infrastructure (PKI)

FY18 TOA: $66.9M

Primary Customers
- PEO C4I PMW 130
- Fleet Cyber Command (FCC) / Tenth Fleet (C10F)
- National Security Agency

Support includes products and services to ensure strong authentication, data integrity, confidentiality, non-repudiation and availability of network resources and information.
Future Opportunities/Growth

Technology Gap Areas:

- Secure Information
- Secure Data as a Service (SDaaS)
- Security Software Update Capability
- Cyber Operations over Information limited Links
- Modeling Insider Threat Profile
- Migrate VRAM to a Commercial Cloud Environment

Where Industry can Help

- HBSS/ACAS
- These are critical skills every program needs
- Essential to include HBSS and ACAS compliance in the system prior to testing and deployment
- Sustainment teams need to understand these capabilities
- Understand our Cyber Security Environment and bring processes/tools to the task order.
- Provide cost effective alternatives to vendor specific professional services such as SPLUNK, CISCO, and JUNIPER, which are product lines utilized in current Navy C4I systems.
- Get advanced training and develop stable of personnel OEM certified
- Become certified reseller of professional services for these OEM's
- Include these relationships in proposals
- Provides suggested approaches in future SBOI or reverse industry panels
- Look where these can be offered to SPAWAR as Commercial items vice services for quick reaction or ad hoc support
- Technology
- Solutions
- Professionals
What We Do

- Delivers engineering, integration and lifecycle support of C4I systems for Naval Aviation platforms, Foreign Military Sales and USCG ships.

Major Systems

- TacMobile Tactical Operations Center (TOC) / Mobile Tactical Operations Center (MTOC)
  - P-8A Poseidon ground support
  - RQ-4A BAMS/Triton ground support
- NAVAIR Foreign Military Sales (FMS)
  - P-8A Poseidon ground support
  - P-3 Orion ground support
- C4I Systems Foreign Military Sales (FMS)
  - New C4I capabilities and modernization of shore/shipboard systems across all COCOMs
- USCG ship new construction and modernization

FY18 TOA: $166.4M

Primary Customers

- PEO C4I PMW 740
- PEO C4I PMW 750
- PEO C4I PMW 760
- NAVAIR & PEOs
- U.S. Coast Guard
- NAVSEA & PEOs

Support includes end-to-end Systems Engineering and Lifecycle Support.
Future Opportunities/Growth

- Cybersecurity Compliance and DIACAP conversion to Risk Management Framework (RMF)
- Designing and Incorporating Security Requirements in Development (DEVSECOPS)
- Designing and Implementing Controls for Network Virtualization
  - Consolidating Core Network Enterprise Services
  - Software Defined Networking (SDN) and Software Defined Infrastructure (SDI)
  - Application Container Microsegmentation
- Virtual Identity Services

Where Industry can Help

- Technology
- Solutions
- Professionals
Surface Ship Integration Division Overview (PMW 750/760) Chuck Auxter (A)

▼ What We Do
- Delivers C4I capabilities and support to the Navy’s Force, Unit and Auxiliary Platforms during new construction.
- Delivers superior Interior Communications (IC) capabilities for the entire Navy Fleet providing acquisition, engineering, logistics and execution for new construction and modernization.
- Delivers state of the art visual communications systems for today’s and tomorrow’s Warfighter.

▼ Major Systems
- C4I for Surface New Construction
- C4I for Large Deck New Construction
- Interior Communications
- VTC

Executes the advanced planning, engineering, integration and installation of C4I equipment on new-construction ships.

▼ FY18 TOA: $112.8M

▼ Primary Customers
- PEO C4I PMW 750
- PEO C4I PMW 760
- NAVSEA & PEOs
- Fleet

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Surface Ship Integration Future Opportunities — Challenges Where Industry Can Help

- Future Opportunities/Growth
  - System of systems engineering
  - Collaborative Engineering
  - Wireless technology for interior communications

- Where Industry can Help
  - Innovative testing strategy
  - Use of wireless technology in secure spaces