



SSC Pacific Portfolio Management Overview

Presented To:
*NDIA San Diego Fall C4I
Industry Symposium*

Presented By:
Business Portfolio Managers

Portfolio Management

- ▼ The coordinated management of portfolio components (IPTs) to achieve specific organizational and customer objectives
- ▼ Provide responsive, best value products and services to existing and new customers
- ▼ Ensure the organization is “*doing the right work*”, rather than focus only on “*doing the work right*”
- ▼ Structure common processes to deliver effective and efficient outcomes
- ▼ Provide demand signal to the Competencies to ensure the workforce is shaped, enabled, and empowered to deliver and sustain our mission

Business Portfolio Manager (BPM) Roles

- ▼ Serve as Industry and Academia Point of Entry to support program and capability development efforts at the Center
- ▼ Provide STRATEGIC program and capability development direction in support of traditional entrepreneurial efforts
 - Work across Competencies and Portfolios to enable creation/integration of NEW warfighter capabilities, or to adapt/revise capabilities for use by NEW Sponsors
- ▼ Provide cross-Center and cross-Enterprise coordination
 - Monitor, coordinate and facilitate use of best practices, technical authorities and system engineering practices across SSC Pacific Competencies and Portfolios
 - Forecast and shape demand signal to the Competencies to ensure the workforce is postured to deliver and sustain our mission
 - Coordinate with counterparts at SSC LANT, and NAVSEA/NAVAIR WCs, to identify joint program and capability development efforts, and best practices
- ▼ Perform approvals and essential checks and balances for the acceptance of work

Portfolio Council

- ▼ Implement the strategic and tactical intent provided by the Executive Director
- ▼ Develop and share specific processes and procedures to execute the BPM roles
- ▼ Oversee the Project Initiation and Work Acceptance process
- ▼ Provide working-level negotiation and adjudicate among Portfolios, Customer-Portfolios, and IPT Leads to promote cross-competency teaming
- ▼ Support tactical and strategic business planning and new program development
- ▼ Manage and administer SSC Pacific's major strategic investment funds and make recommendations for investment of discretionary funds for business development purposes

Portfolios

- ▼ Discovery and Invention – *John Myles (Acting)*
- ▼ Decision Superiority – *Joe Summa*
- ▼ Business and Force Support – *Linda Kusumoto*
- ▼ Transport and Computing Infrastructure – *Jim Reed*
- ▼ Integrated Cyber Operations – *Josh Caplan*
- ▼ Production, Installation, and In-Service Support – *Roger Schweid (Acting)*
- ▼ Battlespace Awareness – *Bryan Tollefson*

- ▼ Fleet Experimentation – *Tracy Conroy*



Discovery and Invention Portfolio SSC Pacific

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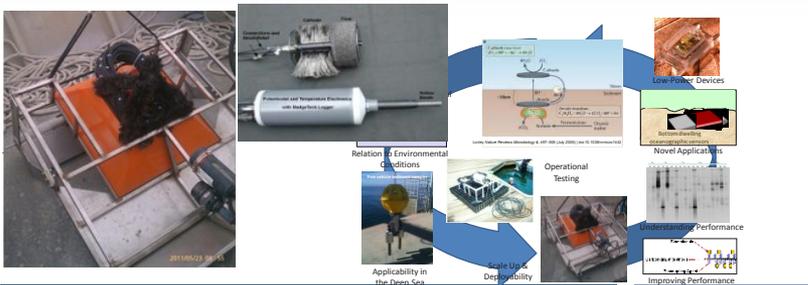
Presented By:
*John Myles
Deputy Business Portfolio Manager*



Engaging with SSC PACIFIC in Discovery and Invention

- ▼ The D&I portfolio
- ▼ S&T at SSC Pacific
- ▼ FY15 S&T Focus areas
- ▼ SBIRs/STTRs
- ▼ Technology Transfer
- ▼ SSC Pacific business arrangements
- ▼ Future Trends

Discovery and Invention (D&I)



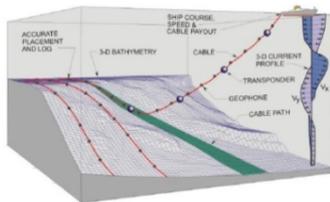
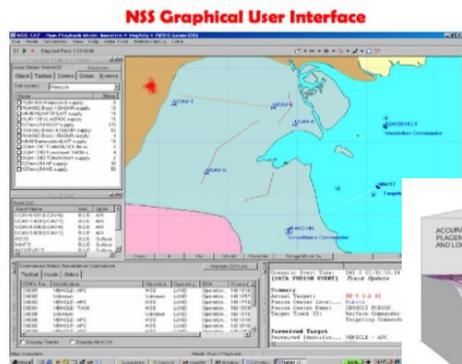
Microbial Fuel Cell



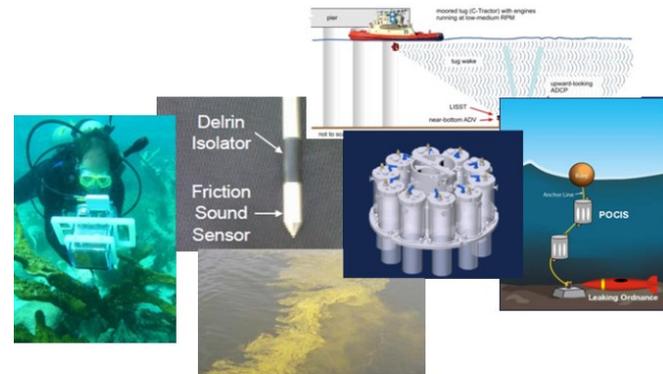
Marine Mammals



STEM Outreach K-12 and University



3D submarine cable computer model of planned complex at-sea cable and array installations



Enhancing Naval Environmental Compliance



Small Business Innovation Research



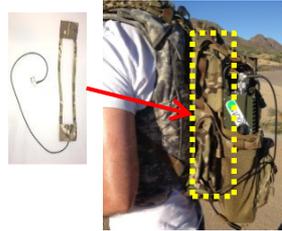
Energy Harvesting

S&T for Tomorrow's Technology to Enable Warfighter Decisions

Small Business Innovation Research



Extended Frequency Range
Wide Band RF Distribution
System for Shipboard Systems

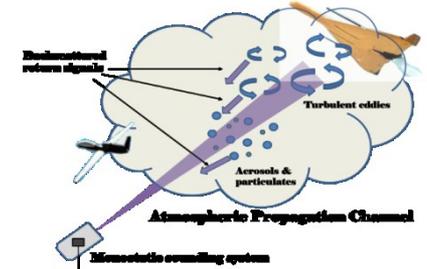


MUOS-on-the-Move

Investments in People, Products, Capabilities



Architecture-based SE Training



Single-Ended Atmospheric Sounding Capabilities



Autonomous Route Reconnaissance and Clearance

Patents

	'08	'09	'10	'11	'12	'13	'14
Disclosures	48	45	107	107	96	134	96
Patents Filed	47	70	68	77	58	60	54
Patents Issued	31	19	42	46	71	57	48

Publications

	'08	'09	'10	'11	'12	'13	'14
Journal Article	196	115	142	143	109	187	204
Conf. Papers	203	121	194	276	318	197	244
TRs/TDs	20	16	13	23	29	50	67

FY15 S&T Focus Areas

- **Cyberspace Operations**
- **Total Ownership Cost Reductions**
- **Undersea Information Dominance**
- **Automated Multi-Platform Data Fusion**
- **Decision Awareness**
- **Cloud Computing**
- **Adaptive Communications**
- **Power and Energy Efficiency**
- **Space-Based Command and Control**
- **Meteorological Modeling and Simulation**
- **Autonomous and Remoted Systems**
- **Novel Materials for Enhanced C4ISR**

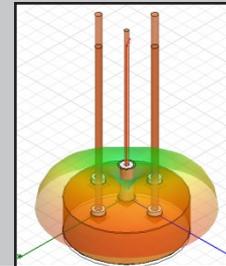
Investing in a Wide Range of S&T is Key to Meeting The DoD's Evolving C4ISR Challenge



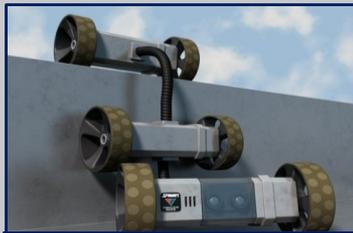
Laser-Based Underwater Communications



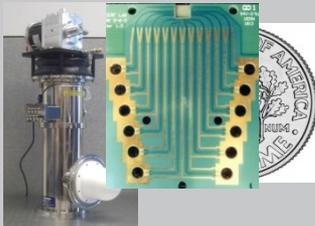
Undersea Wireless Power Transfer



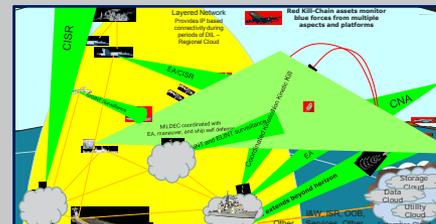
Advanced Antenna Research



Unmanned Systems Adaptive Mobility



Cryogenic Exploitation of RF (CERF)



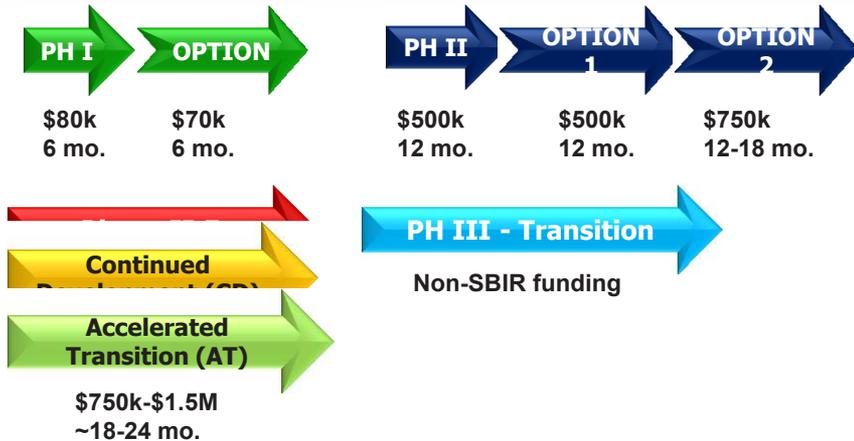
Electronic Warfare Battle Management



P721 Small Business Innovation Research (SBIR) Program

SSC Contact Info: John Thom, 619-226-5296, john.thom@navy.mil

Sponsor(s): Participant SBIR Components: SPAWAR HQ, PEO C4I, PEO Space Systems, PEO EIS, and JTNC



Description:

The Small Business Innovation Research (SBIR) program was established by Congress in 1982 with a statutory purpose to strengthen the role of innovative small business concerns (SBCs) in Federally-funded research or research and development (R/R&D).

Operational Relevance:

- The SBIR program strives to stimulate technological innovation, assist SBCs in meeting federal R&D needs, encourage participation by socially and economically disadvantaged SBCs, and increase private sector commercialization of innovations derived from federal R&D

SPAWAR Role:

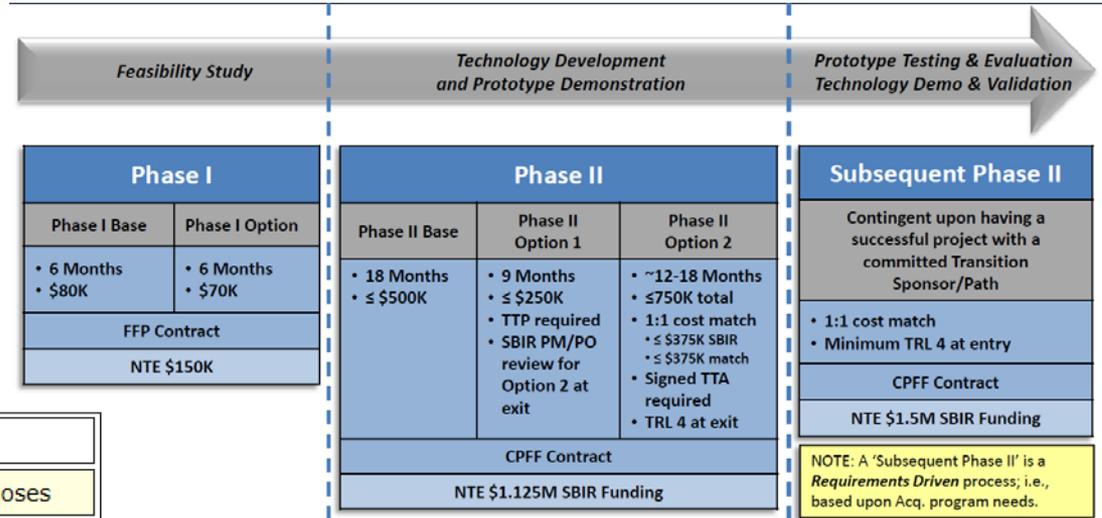
- ▼ The SPAWAR SBIR Program Office facilitates the overall management of the program for the claimancy

Major Accomplishments, Products, Deliverables, Future Milestones:

- SBIR program reauthorized through FY17 (PL 112-81)
- Executed 93-funded contract actions at SSC Pacific totaling \$27.6M with FY12 funding (100% obligation rate)
- Starting in FY15, SPAWAR will be participating in FY15.1, FY16.1, FY16.A DoD SBIR solicitations.
- Starting with receipt of FY14 SBIR program funding (~3Q14), new SBIR contracts will be executed out of SPAWAR HQ; existing SBIR contracts will be administered at SSC Pacific
- Executing 42-funded contracts totaling \$32M with FY13/FY14 funding.

SBIR/STTR dates and processes

<http://www.onr.navy.mil/Science-Technology/Directorates/Transition/SBIR-STTR.aspx>



FY-2015			
Program	Release Dates	Opens	Closes
DoD SBIR 2015.3	27 Aug 2015	28 Sep 2015	28 Oct 2015
DoD STTR 2015.C	27 Aug 2015	28 Sep 2015	28 Oct 2015
FY-2016			
DoD SBIR 2016.1	11 Dec 2015	11 Jan 2016	17 Feb 2016
DoD STTR 2016.A	11 Dec 2015	11 Jan 2016	17 Feb 2016
DoD SBIR 2016.2	22 Apr 2016	23 May 2016	22 Jun 2016
DoD STTR 2016.B	22 Apr 2016	23 May 2016	22 Jun 2016
DoD SBIR 2016.3	26 Aug 2016	26 Sep 2016	26 Oct 2016
DoD STTR 2016.C	26 Aug 2016	26 Sep 2016	26 Oct 2016

<http://www.acq.osd.mil/osbp/sbir/sb/schedule.shtml>

- ▼ The Navy SBIR/STTR Solicitation are released as part of the DoD SBIR/STTR solicitation process.
- ▼ There is one FY2015 remaining, and three SBIR/STTR solicitations scheduled for FY16

Teaming with Industry & Academia and Partner Nations





10 U.S.C. § 2563/ § 2539B

POC: Brian Suh /619-553-5118/brian.suh@navy.mil

Collaboration Locally & Nationally



AFCEA
San Diego Chapter



NDIA
NATIONAL DEFENSE INDUSTRIAL ASSOCIATION



CONNECT



POC: Mary Gmitruk /619-553-4961/mary.gmitruk@navy.mil

NDIA FALL
OCT 2015

- 24 CRADAs at SSC Pacific
- 25 CRADAs in pipeline
- 417 Active contracts including grants
- 1,080 firms, including simplified acquisition
- Work for Private Parties
- Patent Licenses
- 19 Exchange agreement annexes

San Diego State University



- ▼ Naval Research Enterprise Intern Program (NREIP)
- ▼ Student Career Experience Program (SCEP)
- ▼ Coalition Warrior Interoperability Demo (CWID) at SDSU (though 2011)



UC San Diego



- ▼ All Schools
- ▼ All Research Centers
- ▼ Cooperative Agreement



SSC Pacific Technology Transfer Office



SSC Pacific Technology Transfer Office

- ▼ E-mail: ssc_pac_t2@navy.mil
- ▼ Website: <http://www.public.navy.mil/spawar/Pacific/TechTransfer>
- ▼ : <http://www.youtube.com/spawarpacifict2>

Brian Suh, Director, Technology Transfer Office

- ▼ Tel: 619-553-5118
- ▼ E-mail: brian.suh@navy.mil



Business Arrangements at SSC Pacific

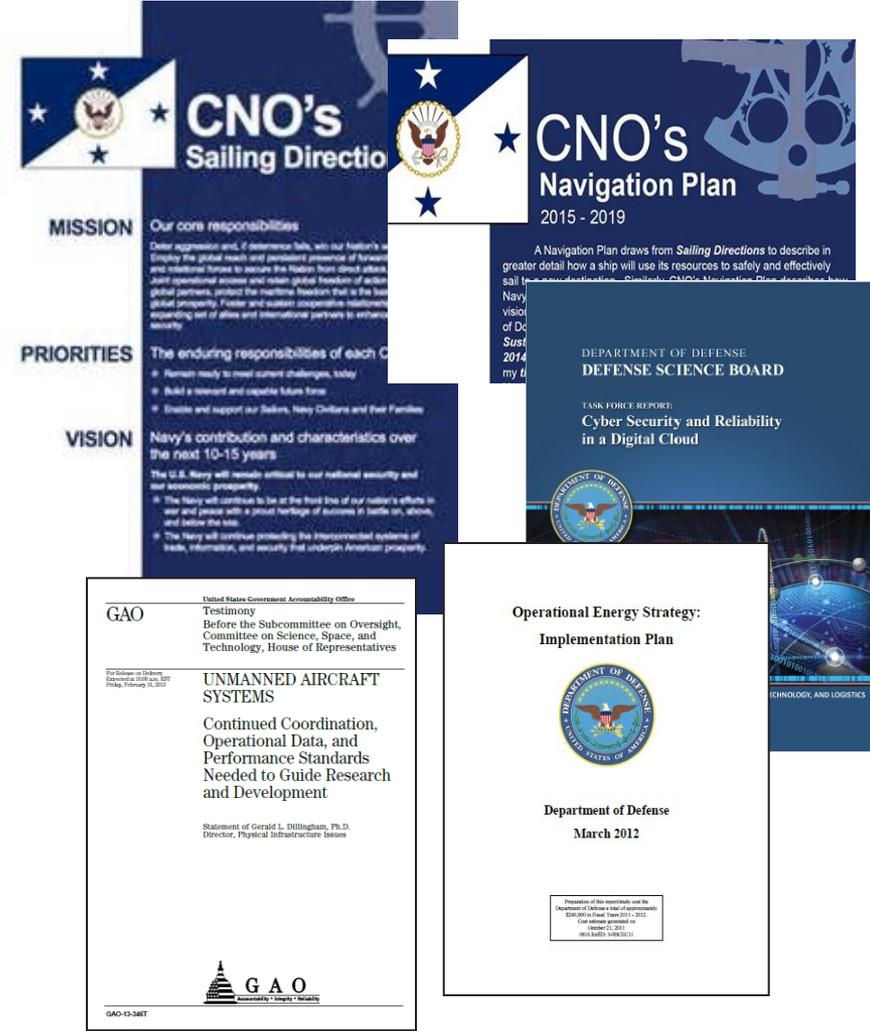
Instrument Name	Purpose	Criteria for Use	Competition?	Approval Authority
FAR Contract	Used for acquisition by contract with appropriated funds of supplies or services by and for the use of the US Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated – unless expressly excluded by other authority.	Varies. Consult your contracting officer for advice.	Yes	Varies
Cooperative Agreement	An assistance instrument for R&D where substantial involvement is expected between the Government and the recipient when carrying out the activity.	Recipient must be determined qualified; i.e., can be good steward of federal funds and proposed budget is appropriate for the scope of the research effort. No profit allowed.	To the maximum extent practicable	Grants Officer, SSC Pacific
CRADA	Used to facilitate collaborative R&D and technology transfer between DoD lab and non-federal party. Parties can provide equipment, facilities, IP, personnel, and services. Non-federal party can provide funds to DoD lab.	Work must be consistent with mission of DoD lab. Commercialization of DoD technology is desired.	No	CO, SSC Pacific
Other Transaction	Used to acquire prototypes which are directly relevant to weapons or weapon systems proposed to be acquired or developed by DoD. Used to attract partners that normally will not do business with the Government, or when FAR contract not feasible.	Must be at least one nontraditional defense contractor involved to a significant extent; or one of the following: (1) at least 1/3 cost share from non-federal parties, or (2) approval by ASN RDA. Profit allowed except for cost sharing OTs. Cost/price must be determined fair and reasonable.	To the maximum extent practicable	Varies

SSC Pacific C4I BAA:

https://www.fbo.gov/index?s=opportunity&mode=form&id=9d1b07a1ec44ac210bcc08838f75bbb7&tab=core&_cvview=0

Future Trends...

- ▼ **Cloud Computing**
 - Investment and research into scalability, security, usability
- ▼ **Cyber Capabilities**
 - Defensive AND offensive
 - Rapid acquisition and fielding
- ▼ **Unmanned Systems**
 - Research and development to support enhanced autonomy and PED
- ▼ **Focus on Energy**
 - DoD actively seeking to transform the way it uses energy
- ▼ **Rebalance Asia**
 - SSC Pacific Westpac Footprint



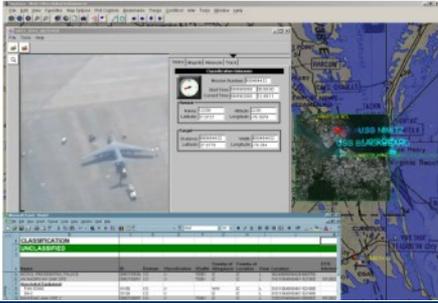


Decision Superiority (DS)

Presented To:
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Industry Symposium

Presented By:
Joe Summa
Business Portfolio Manager

Decision Superiority



Imagery - Situation Awareness



Tactical Data Links



GCCS-M / MTC2 / TBMCS



Human Factors Engineering



PACOM



JIATF



CENTCOM



1MEF

Global Positioning and Navigation Systems



Full Spectrum COMMAND CENTER Development

Decision Superiority for Commanders, Operational Forces and the Nation



Ballistic Missile Defense System Test Bed



Land Based Operational Test Environment

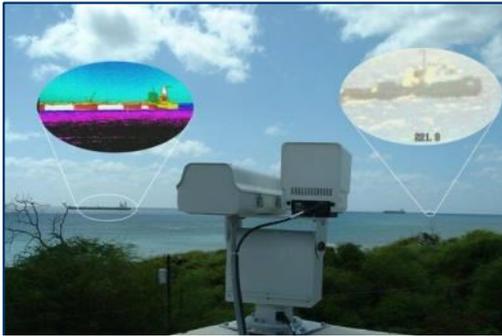


Business and Force Support (BFS)

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Presented By:
Linda Kusumoto
Business Portfolio Manager

Business and Force Support



Anti-terrorism Force Protection
Integrated Physical Security Systems



CAMEO/V-22



Mobility/Smart Devices

Application Stores, Applications,
Widgets, Knowledge Management, Social Networking



Computing Environments
Cloud, Virtualization, Big Data



Business and Force Support Focus Areas

Areas of Emphasis

- ❑ Increased demand for Anti-Terrorism Force Protection and Integrated Physical Security Systems
- ❑ Growth in application development with integrated information and technology
- ❑ Integration of smart devices to enable mobility everywhere
- ❑ USN & USMC unique requirements for dealing with big data and performing analytics
- ❑ Demand for Defensive Cyber continues to increase for computing environments
- ❑ Rebalance “tail” to “tooth”, involvement in DoD and DoN search for efficiencies and cost savings
 - ❑ Navy Data Center Consolidations
 - ❑ Application Rationalization
 - ❑ Virtualization and Cloud Computing
 - ❑ Related Energy and Green Initiatives



ATFP / Physical Security / Force Protection and Support



Applications / Application Stores



Mobility / MaaS / Smart Devices



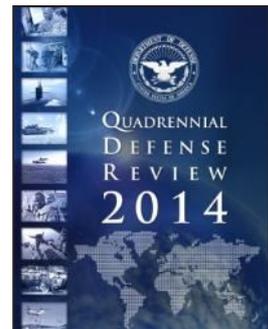
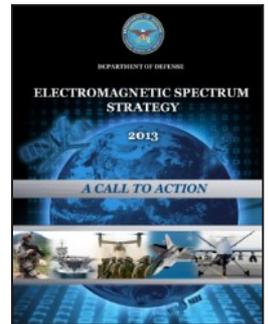
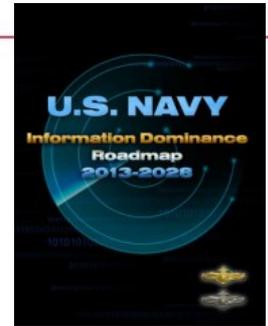
Cloud, Big Data, Analytics, Business Intelligence



Computing Environments: Navy Enterprise Data Centers JIE and HPCC



BFS related Energy Initiatives



Commander's Guidance



CNO's Sailing Directions



Transport and Computing Infrastructure (TCI)

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Presented By:
*Jim Reed
Business Portfolio Manager*

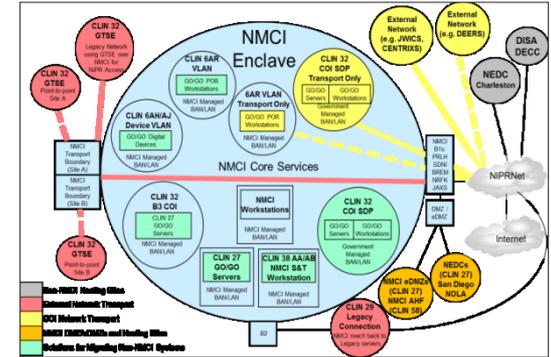
Transport and Computing Infrastructure



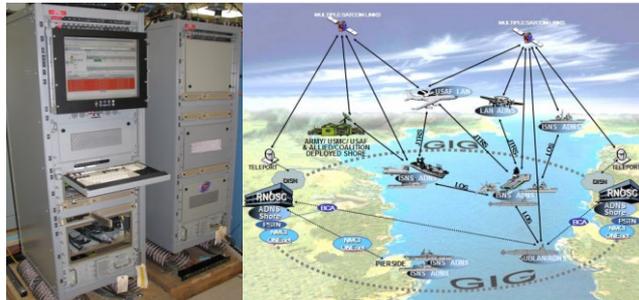
Consolidated Afloat Network Enterprise Services (CANES) Engineering and Interoperability Testing



Mobile User Objective System (MUOS)



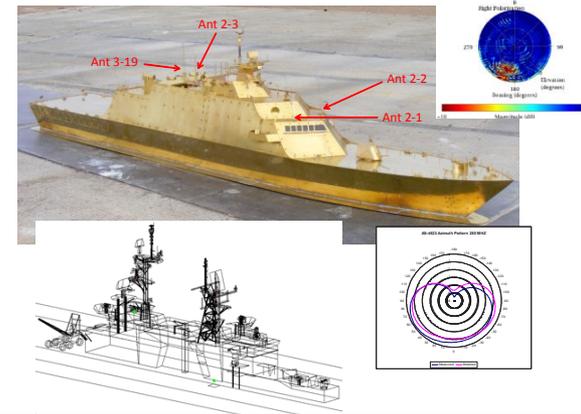
Next Generation Enterprise Network (NGEN)



Automated Digital Network System (ADNS)



Joint Tactical Networking Center (JTNC)



Antenna Engineering and Modeling

Communications and Networks to the Tactical Edge

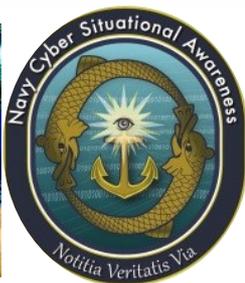


Integrated Cyber Operations (ICO)

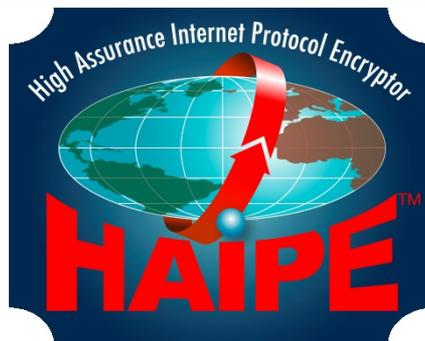
Presented To:
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Industry Symposium

Presented By:
Josh Caplan
Business Portfolio Manager

Integrated Cyber Operations



Navy Cyber Situational Awareness



High Assurance Internet Protocol Encryptor (HAIPE)



Computer Network Defense Afloat (CND-A)



U.S. Coast Guard Cybersecurity



Cyber TASE



SAFER Warfighter Communications



Link-16 COMSEC

Assured Information Dominance Through Cyber Operations



Production, Installation and In-Service Support (PII)

Presented To:
*NDIA San Diego Fall C4I
Industry Symposium*

Presented By:
*Roger Shweid / Jim Ritchie
Acting Business Portfolio Managers*

Production, Installation and In-Service Support



Production, Restoration & Repair



Installation and Integration



Global In-Service Support



In-house and Virtual Training and Logistics

Sustaining the Tactical Edge through Reliable C4ISR Logistics Support



Battlespace Awareness(BA)

Presented To:
NDIA San Diego Fall C4I
Industry Symposium

Presented By:
Bryan Tollefson
Portfolio Manager

Battlespace Awareness



SSEE Inc F

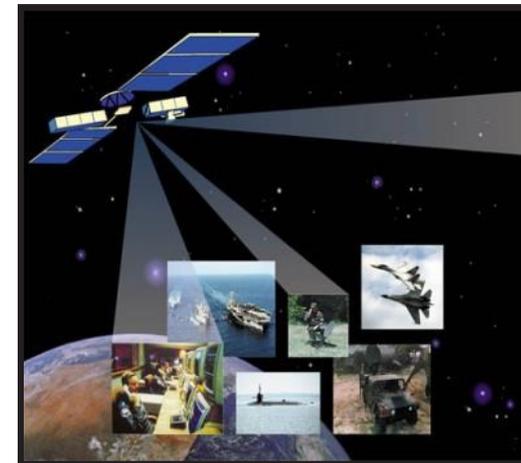


C4ISR for Unmanned Systems across All Warfare Domains

Capabilities

- ISR
- IO, SIGINT, EW
- Unmanned Systems / autonomy
- METOC
- Multi-Int Data Fusion / Integration
- Maritime Domain Awareness
- Automated TCPED

**Automated
Imagery
Analysis**



Space & National Systems

Enabling better, faster decisions than our adversaries – in a very dynamic battlespace, with fewer people, in a distributed force, from Seabed to Space



FLEET EXPERIMENTATION

Presented To:
NDIA San Diego Fall C4I
Industry Symposium

Presented By:
Tracy Conroy
Experimentation Director



Goal of Fleet Experimentation - Why do Experimentation?

- ▼ Get Engineers and Scientist's Projects Out Of The Lab
 - Let the People Who Paid For Technology See It In The Real World!
 - Engineers and Scientists Don't Know What They Don't Know

- ▼ Get Technology into Warfighter's Hands

- ▼ Not Part of FORMAL ACQUISITION PROCESS (JCIDS)
 - Reduces Risk for Programs and Sponsors

- ▼ We Leverage Existing Large Scale Operational Fleet Exercises and We Wedge In Experimentation Sections.

The Valley of Death

Permission of Wisconsin Historical Society
10/14/2015



Goal of Fleet Experimentation

- ▼ How to Get ‘You’ to Interface with the Fleet
- ▼ Technical Solutions to Existing Technology
- ▼ Material and Non-Material Experimentation
- ▼ **Main Problem: “IT IS HARD TO DO INSTALLS”**
 - Drowning in Process, Procedures, Paperwork, and Regulation
 - Hard to Get Time In/On Platforms

FLEX Initiative Submission - *on SIPRNET*

- Official initiative submission requires detailed entry into the FLEX Information Management System (FIMS): <https://fims.nwdc.navy.smil.mil> *On SIPRNET*
 - To create an initiative you must be registered and logged in.
 - On FIMS homepage, select:  Create Fleet Initiative
 - Provide as much detail and complete as much of the form as possible.
 - Title – please keep this unclassified
 - POC information – this is the person we will contact with questions. Please make sure to enter the appropriate person.
 - SELECT: “This is an SSC Pacific Experiment”
 - Attach supporting documents if available.
 - Once submitted the initiative is reviewed by the FLEX Plans section for relevance to Commanders Guidance and venue availability.
 - Once selected for possible inclusion in the Campaign plan the originator and venue lead are notified so in-depth planning can begin.



Experimentation Venues

Title	Sponsor	Focus	Location	Frequency	Comments
Valiant Shield	PACFLT	Mil Cooperation	PAC AOR	Biennial – Aug - Sep	Undersea Focus
UDOC/ USWEET	UWDC (NMAWC)	Counter Mine/Sub	SOCAL	Yearly - Sept	
Black Dart	JIAMDO	C-UAS	SOCAL	Yearly - July	
FBX	NWDC	Varies	Varies	Yearly - TBD	
Trident Warrior	NWDC	At Sea, all WF areas	East Coast – Odd; West Coast - even	Yearly - June	22 Active SPAWAR Initiatives
RIMPAC	THIRDFLT	PACIFIC RIM	Hawaii	Every 2 years – Jun-Aug	Trident Warrior
CWIX	NATO	Coalition	Numerous		
Northern Edge	NORTHCOM / PACOM	Alaska Comms	Alaska	Yearly June	THIRDFLT Executes

Experimentation Success Stories

- ▼ **Common Optical Distribution Architecture (CODA) /4G-LTE/O3B Satellite**
 - Trident Warrior - 15 in Pacific AOR
 - Great Data Transfer Capacity – Video, Voice
- ▼ **Intelligence Carry-on Program Prototype (ICOP)**
 - Integrate intelligence with line-of-sight FMV sensors/assets (ScanEagle/Predator/P-3/FireScout, etc) and exploit/disseminate data
 - Alignment with validated fleet requirements to support accelerated fielding of these capabilities across the fleet
- ▼ **Multi-Band Antenna (MBA)**
 - HF, UHF, and VHF on one aperture – Saves Space
- ▼ **Shipboard and Shore CANES development**
 - Transition of all ship and shore network servers to current blade technology
 - Provided invaluable data on ship and shore design and development
- ▼ **Intra-Battle Group Wireless Network (IBGWN)**
 - VRC-99 radios provided a data network for the USS Essex Amphibious Ready Group
 - This network was tested and left aboard to give the ARG this JTRS-like capability
- ▼ **Range of Warfare Command and Control (ROWC2)**
 - Capability to provide command and control in a satellite denied environment
 - This Joint effort address procedural as well as technical solutions

What's In It For Me (Industry)?

▼ Can Industry Play??

- **YES**

▼ CAA for FY15 Trident Warrior Experimentation

- “The purpose of this Commercial Area Announcement (CAA) is to elicit industry input for experimental initiatives that may be considered for the Fiscal Year 15 (FY15) Trident Warrior experiment. Respondents are advised that the Government will not pay for any information or administrative costs incurred by any interested party in response to this CAA. All costs associated with responding to this CAA are the sole responsibility of the interested party.”

▼ JIFX – Joint Interagency Field Experiment

- Joint Interagency Field Experimentation Program (JIFX) began in 2012 under the sponsorship of the Office of the Secretary of Defense and the Department of Homeland security. JIFX events are held quarterly, normally at NPS facilities on the California National Guard's Camp Roberts. The purpose of JIFX is to provide a field experimentation resource for the Unified Combatant Commands (COCOMs) and other federal agencies. In addition, State, local and international emergency management, disaster response and humanitarian assistance organizations are most welcome to help create an innovative cooperative learning environment.

Q & A