



# SIEN / NDIA Fall Symposium Day One

09 October 2012

Presented to:  
SPAWAR Industry Executive  
Network



# Agenda

---

- 02:10pm Budget Review  
Steve Dunn - SPAWAR Comptroller
- 02:40pm SPAWAR SYSCOM Update  
RADM Patrick Brady – Commander, SPAWAR
- 03:10pm PEO C4I IT Initiatives and opportunities  
Pat Sullivan, PEO C4I Executive Director
- 03:50pm Fleet Readiness Directorate Update  
CAPT Evan Piritz, FRD EA
- 04:25pm SSC Pacific Initiatives and Opportunities  
Lee Zimmerman, National Competency Lead for  
Network Centric Engineering and Integration
- 5-6:00pm Networking Reception



# SPAWAR: The Navy's Information Dominance Systems Command

09 October 2012

Presented to:  
SPAWAR Industry Executive  
Network

Rear Admiral Pat Brady  
Commander,  
Space and Naval Warfare  
Systems Command



# SPAWAR Update

- ▼ Changes at SPAWAR
- ▼ Engagement with Navy Leadership
- ▼ Major Focus Areas
- ▼ Navy IT Efficiency Efforts



"The Navy must be ready to fight and win today, while ensuring the ability to win tomorrow. This tenet (Warfighting First) is exceptionally important as we address tensions in the Arabian Gulf, increase our focus on the Asia-Pacific, and support our partners and allies around the world. Our warfighting investments directly support the missions outlined in the new defense strategic guidance."

- Excerpt from ADM Greenert's Navigation Plan 2013-2017



# Program Executive Office Command, Control, Communications, Computers and Intelligence (PEO C4I)

## IT Initiatives and Opportunities *NDIA Fall Symposium*

October 9, 2012  
Pat Sullivan  
Executive Director, PEO C4I  
[pat.sullivan@navy.mil](mailto:pat.sullivan@navy.mil)

**Statement A:** Approved for public release, distribution is unlimited (9 OCTOBER 2012)

**Information Dominance  
Anytime, Anywhere...**





# Agenda

- C4I Capability Builds
- IA Vulnerabilities
- S&T Capability Gaps
- Streamlining Acquisition to Rapidly Field IT Capabilities



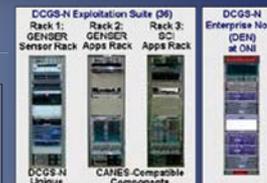
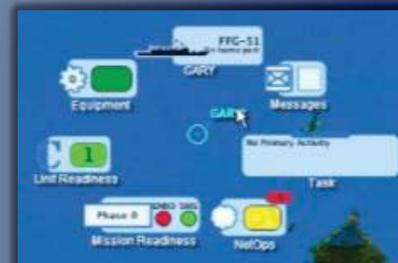
# PEO C4I Portfolio

The PEO C4I provides integrated communication and information technology systems that enable information dominance and the command and control of maritime forces

**DELIVERY**  
"You have mail!"  
**OR**



## Applications



## DCGS-N

**99 Programs and Projects**

**FY12 Budget \$2,406M**

**A  
D  
N  
S  
S  
H  
O  
R  
E**

## Communication



**Navy Multiband Terminal (NMT)**



**AEHF**

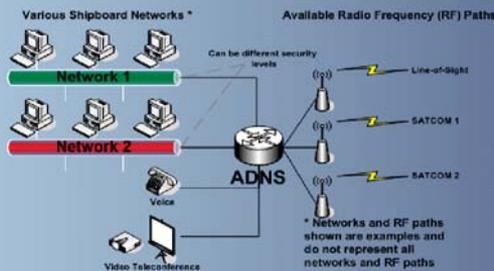


**Digital Modular Radio (DMR)**

## Networks



**CANES**



**ADNS**

## INNOVATION

- ONR
- NRL
- Warfare Centers
- FFDR
- Academia
- UARCs
- Industry

**Platforms Programmed for Support:**  
Afloat: 243    Shore: 322    Expeditionary: 21

**ACAT I: 10    ACAT II: 6    ACAT III & Below: 83**



# C4I Capability Builds

## *Configuration Management: Variance Challenge*

- Today, there are:
  - Multiple unique configurations across ship classes and platforms
  - Unique engineering / design costs that impact tail-to-tooth gains
- Disparate C4I platform configurations hamper:
  - Interoperability
  - Operational Effectiveness
  - Configuration Management
  - Logistic Support
- Current business and funding model does not support rapid capability delivery or provide the ability to rapidly respond to security threats
- Acquisition challenge
  - Synchronize development, procurement, and integration
  - Provide a structured means to respond to new capability and security requirements

**C4I Capability Builds groups products in end to end packages for installation; requires new business and funding model**



# C4I Capability Builds

## DDG Modernization FY14-15

Network and Applications	
Program	Variant/Version
CANES	AN/USQ-208(V)1 CANES HW/SW v1
ADNS	AN/USQ-144K(V)2 ADNS Inc III + SP1, 2, 3, & 4
GCCS-M	V4.1
NTCSS	PATRIOT v800-02.03.30
NAVMACS	NAVMACS II Tech Refresh
MFOM	MFOM Maintenance Toolbox v2.0
MFOM	MFOM System Casualty Report Toolbox v2.0

Common Radio Room*/Bandwidth	
Program	Variant/Version
NMT	AN/WSC-9(V)2 NMT (Q/X/Ka)
NMT	ATIP
GBS	AN/USR-10A(V)7
CRYPTO	KIV-7M COMSEC Serial Crypto Replacement
CRYPTO	VACM
UHF IW	DMR IW or 1324A + IW or AN/PSC-5D
NAVSTAR GPS	SEA NAVWAR ADAP
DMR	DMR 6.4.x
JTIDS	AN/URC-107 4.09
BFTN	AN/USQ-195(V)1 or BFTN(e)
ISSP	EKMS Phase 5
ISSP	KMI Spiral 2



Warfare Support	
Program	Variant/Version
CDLMS	CDLMS 3.8
NAVSTAR GPS	NAVSSI 4.2.0 or NAVSSI 4.2.1
NAVSTAR GPS	NAVSSI 4.2.0.56/4.2.1.97R3
JTT-M	AN/USQ-151 JTT-M

Signals Exploitation	
Program	Variant/Version
SSEE	AN/SSQ-130(V) SSEE Inc F
SSEE	MODS - Graywing, Paragon, Antenna Mods



**Multiple C4I Capability Builds grouped from the Platform Baseline**

\* - does not include automated management function



# C4I Capability Builds

## Variance Reduction Board

PEO C4I provides:  
**Available**  
C4I  
Capability  
Builds

### Build Implementation Fleet Working Group

Delivers: **Proposed / Prioritized**  
C4I Capability Builds

### Platform Requirements Validation Group

Delivers: **Validated / Prioritized**  
C4I Capability Builds

### Flag Level Board of Directors

Delivers: **Resourced**  
C4I Capability Builds

***Incorporates Operational Fleet and Resource Sponsor input***



# IA Vulnerabilities

## *Problem Statement / Solution Process*

- Many C4I PoR's have documented Information Assurance vulnerabilities
  - Mitigation is costly and slow
  - Indicates C4I systems at high IA risk
- Issue Resolution Process
  - Gather data
  - Determine root causes
  - Identify solutions



# IA Vulnerabilities

*Data indicates multiple root causes*

- Example root causes
  - System is used operationally after planned retirement date
  - Inadequate sustainment funding / sustainment costs too high
  - Inadequate system design process
  - Long technology refresh schedule
- Example solutions
  - Design application portability
  - Develop forecasting model for EOL COTS components
  - Strengthen perimeter defense and configuration management mechanisms on the network

**Addressing root causes requires both short term and long term strategies**



# Strategic Imperatives & Alignment

**ALIGNING TO KEY INITIATIVES**

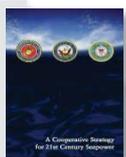
PEO C4I 2012 Strategic Plan



CNO Guidance



Maritime Security Strategy



Navy Objectives



USD (AT&L) Guidance Memo



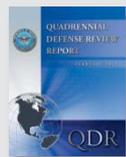
DoD FY12 Budget Request



DoD Strategic Management Plan



Quadrennial Defense Review



National Military Strategy



National Security Strategy



**Top down strategic alignment consistent with SECNAV, CNO, and Command goals & objectives**

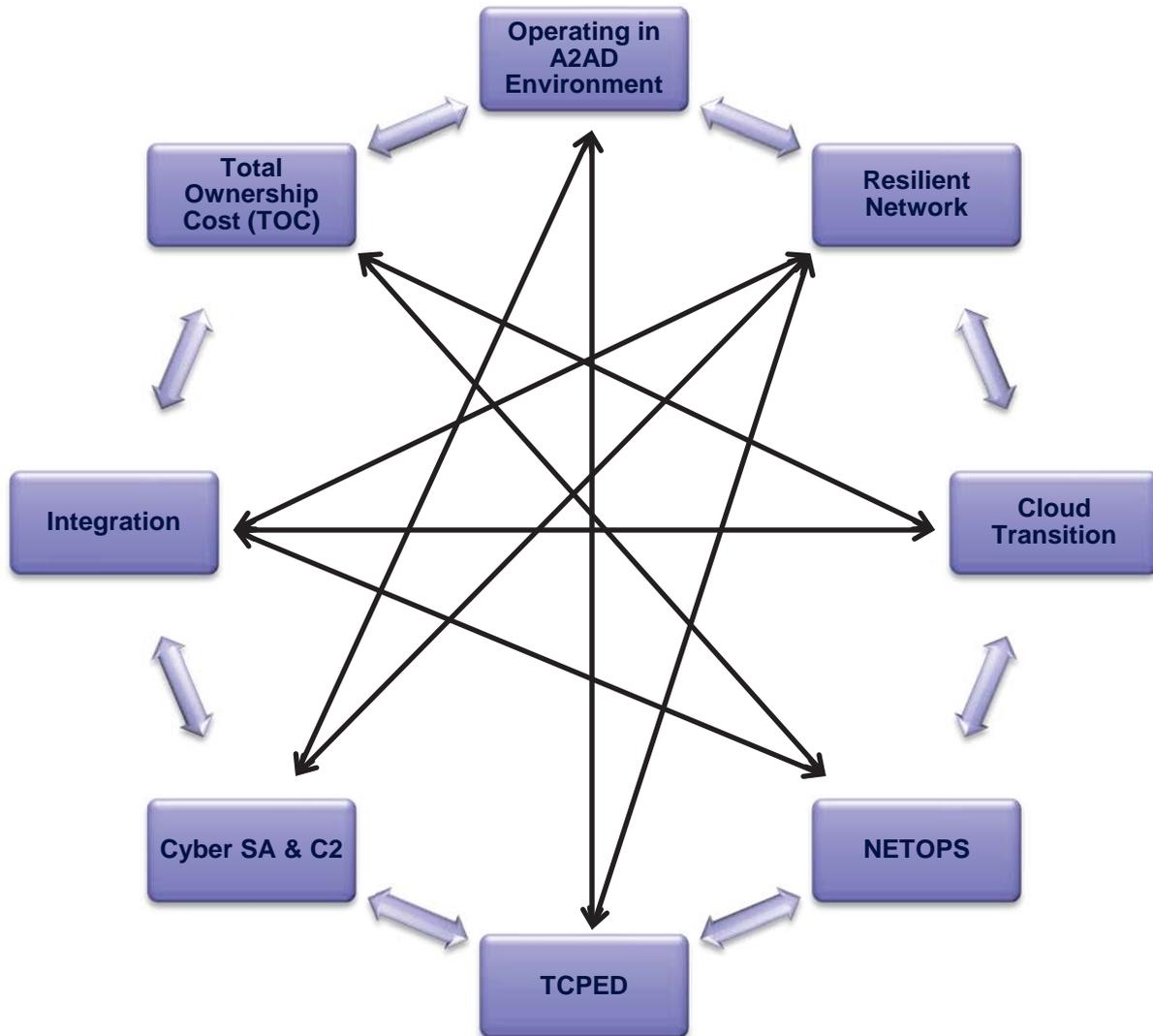
**Performance measures established to monitor performance and contribution to top down goals, objectives, and initiatives (i.e. Architecture, Cost, Maturity)**

<p>PEO C4I S&amp;T CONOPS</p>	<p>PEO C4I S&amp;T Acq Requirements</p>	<p>DoD S&amp;T Strategy</p>	<p>Naval S&amp;T Strategy</p>
-------------------------------	---	-----------------------------	-------------------------------

**Information Dominance: Anytime, Anywhere...**



# PEO C4I S&T Challenge Areas





# The Need for Streamlined Acquisition

**Be responsive to Fleet Needs**

Republodon copy—subject to further editorial correction

**Achieving Effective Acquisition of Information Technology in the Department of Defense**

Committee on Improving Processes and Policies for the Acquisition and Test of Information Technology in the Department of Defense

Complex Information and Telecommunications Team

Division on Engineering and Physical Sciences

H. R. 2647

One Hundred Eleventh Congress of the United States of America AT THE FIRST SESSION Began and held at the City of Washington on Tuesday, the sixth day of January, two thousand and nine

An Act To authorize appropriations for fiscal year 2010 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to provide military personnel benefits for each fiscal year, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "National Defense Authorization Act for Fiscal Year 2010".

SEC. 2. ORGANIZATION OF ACT INTO DIVISIONS; TABLE OF CONTENTS.

(a) DIVISIONS.—This Act is organized into five divisions as follows:

(1) Division A.—Department of Defense Authorizations.

(2) Division B.—Military Construction Authorizations.

(3) Division C.—Department of Energy Activities.

(4) Division D.—Department of Energy Construction Authorizations.

(5) Division E.—Department of Energy Research and Development.

REPORT OF THE DEFENSE SCIENCE BOARD TASK FORCE ON

Department of Defense

Principles and Procedures for the Acquisition of Information

March 2009

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics

HOUSE ARMED SERVICES COMMITTEE PANEL ON DEFENSE ACQUISITION REFORM FINDINGS AND RECOMMENDATIONS

March 23, 2010

ROBERT ANDERSON, CHAIRMAN  
MR. JIM COOPER  
MR. BRAD ELLIOTT  
MR. JIM HANCOCK

K. MICHAEL EDWARDS, RANKING MEMBER  
MR. RONCH HENNING  
MR. MIKE COFFMAN

**A Perspective in Modernizing Information Technology Acquisition Process Across DoD**

*Strategic Imperatives and Focus Areas for FY11*

Don Johnson  
Office of the Assistant Secretary of Defense for Networks and Information Integration (OASD(NII))/DoD CIO  
don.johnson@osd.mil

**AEEI**  
An Executive Forum on Business Change

Industry Recommendations for DoD Acquisition of Information Services and SOA Systems

July 7, 2008

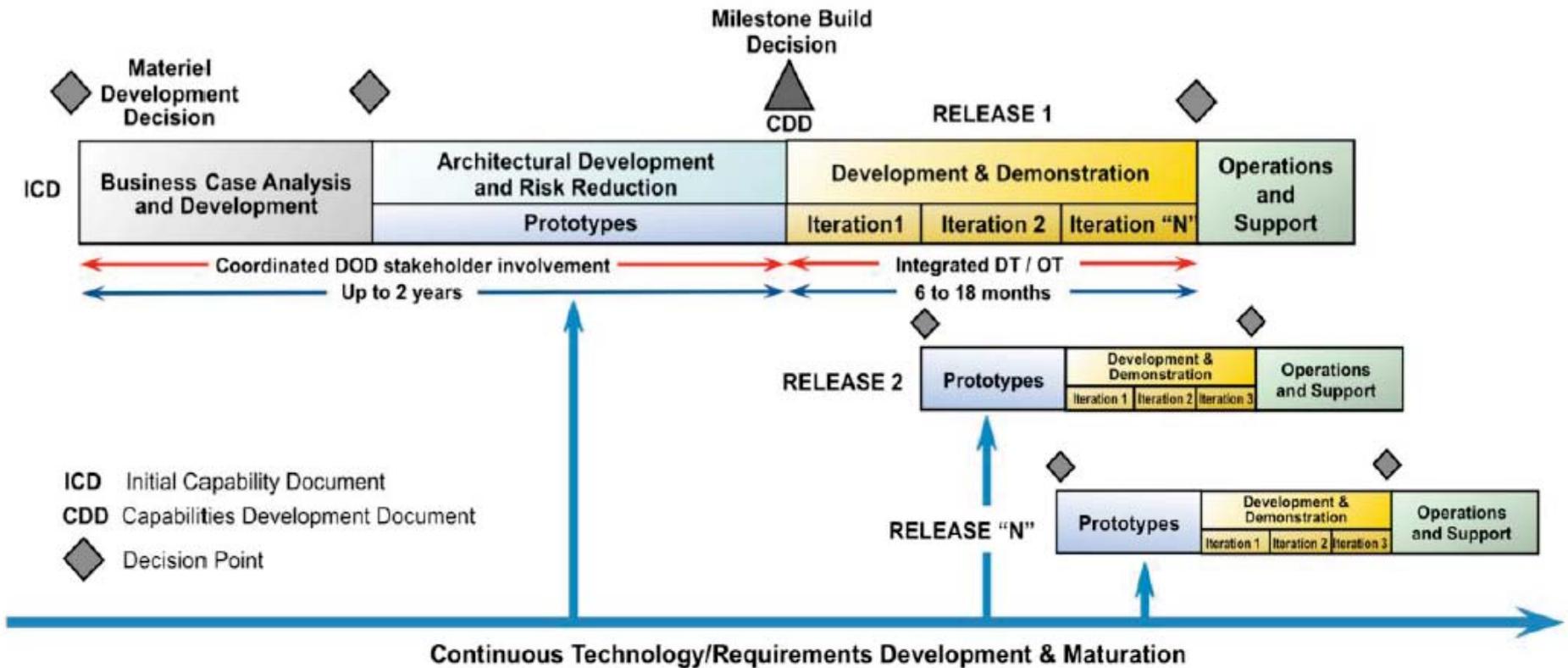
SOA Acquisition Working Group  
The Association for Enterprise Integration  
an affiliate of the National Defense Industrial Association

Need-to-Know Energy Strategy  
©2008 National Energy Council  
www.nec.org

- Defense Science Board (DSB) report from March 2009, proposing a streamlined process for acquisition of IT
- FY10 Defense Appropriations Act Sec 804: “The Secretary of Defense shall develop and implement a new acquisition process for information technology.”
- DoD Report to Congress, November 2010: established guiding principles for rapid IT acquisition



# Piloting Agile Acquisition Process



- NITES Next
- CND Inc 2
- MTC2
- Cyber SA
- DSGC-N Inc 2
- G-TSCMIS
- CANES

**Deliver releases rapidly via ozone widget framework**



# Widget PoR

## *Fleet Considerations*

- **Widget**
  - Small software application acquired, owned, certified and sustained by a PoR
  - Capabilities implemented as widgets are derived from validated PoR requirements
- **Widget availability to the Fleet**
  - Widget Storefronts (such as from PEO C4I)
  - New and existing capability deployment directly and rapidly by PoRs
- **Fleet user may download only the widgets associated with applications that are part of a PoR system with the Authority To Operate (ATO) for execution in the users environment**



# Summary

- **C4I Capability Builds**
  - Driving down variance in the fleet
- **IA Vulnerabilities**
  - Attacking the root causes
- **S&T Capability Gaps**
  - Designing solutions to warfighter needs
- **Streamlining Acquisition to Rapidly Field IT Capabilities**
  - Piloting agile development and widgets to deliver IT capabilities faster to the fleet



# SPAWAR Fleet Readiness Directorate Overview

Presented to:  
SIEN

9 October 2012

Presented by:  
CAPT Evan Piritz  
Chief of Staff  
Fleet Readiness Directorate



# Key Tenets / Principles

- ▼ Improved Fleet Focus
  - SPAWAR Flag focal point for maintenance, repair, installation delivery and sustainment issues
- ▼ In-Service Sustainment Advocacy
  - Provides coordination of all the SPAWAR actors: Fleet Systems Engineering Teams, Program Offices (PMWs), In-Service Engineering Agents, Fleet Support Teams, Training Support Agent
  - Includes coordination with PMW's for in-service requirements
- ▼ Permits PEOs to increase their focus on acquisition

***The Fleet Readiness Directorate at SPAWAR...  
We Put the Fleet First!***

# What Changed Under the FRD?

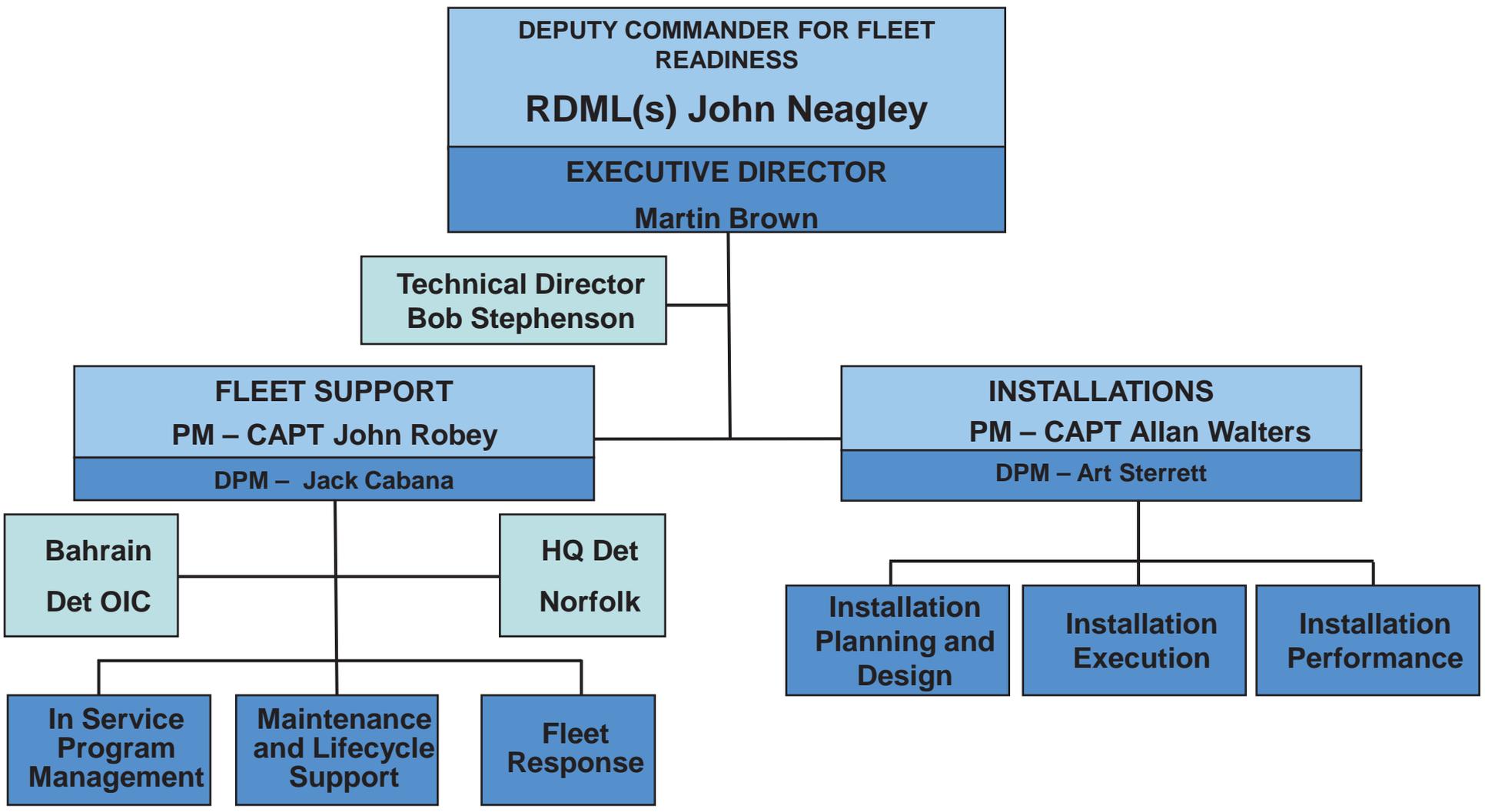


## *FRD*

- ▼ Consolidated accountability
- ▼ Single POC for the Fleet
- ▼ Consistent SPAWAR voice/message
- ▼ Clear reporting relationships
- ▼ Single source of situational awareness



# SPAWAR Fleet Readiness Directorate





# PEO C4I and FRD Roles



**Advance Planning**

**Execution Management**

**Fleet Support Management**

**Platform Integration & Base Line Management**

**Work Plan Management**

**Design Management**





# Fleet Support Program Mission and Goals

## ▼ Mission

- We deliver Fleet Readiness by ensuring fielded SPAWAR systems are mission ready through our Fleet response, lifecycle support, and in-service program capabilities

## ▼ Goals

- Improve System Performance by identifying and reducing degraders
- Enable and Improve Ship and Waterfront sustainment capabilities
- React quickly when called
- Reduce TOC

# FSET Program

## FSET Expertise

### Applications

*GCCS-M, NTCSS, COMPOSE, etc.*

### Networks

*SCI, CENTRIX, ISNS, etc.*

### Transport

*ADNS, INMARSAT, EHF, etc.*

Yokosuka

4 Afloat  
1 C7F

PNW

5 Afloat

Hawaii

2 NCTAMS

San Diego

1 AOR Lead  
12 Afloat

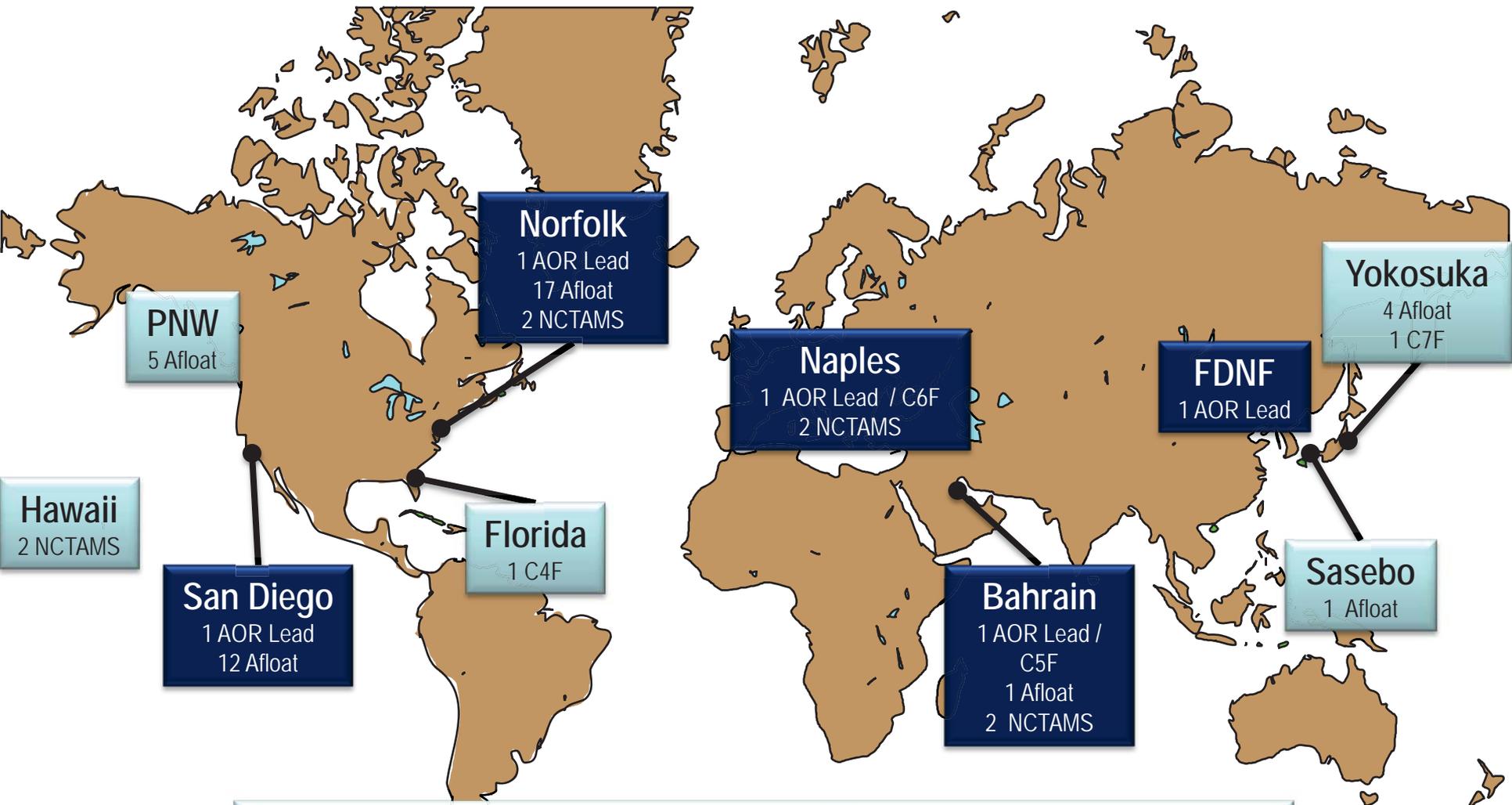
Sasebo

1 Afloat

FSEs Are Responsible for End-to-End Network Readiness

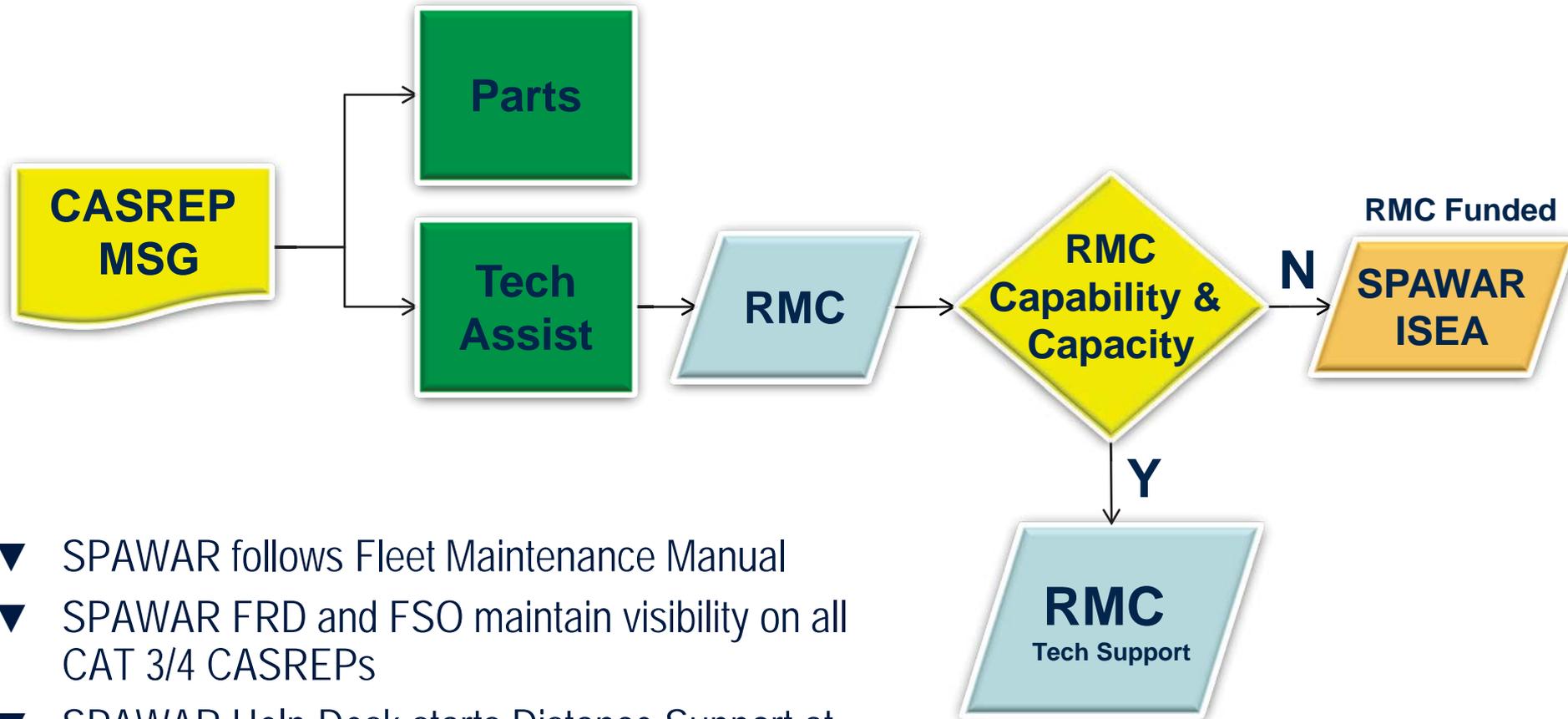


# FSET SPAWAR Afloat & NCTAMS Support



**SPAWAR: 46 Afloat FSEs and 8 NCTAM FSEs**

# CASREP Technical Assistance



- ▼ SPAWAR follows Fleet Maintenance Manual
- ▼ SPAWAR FRD and FSO maintain visibility on all CAT 3/4 CASREPs
- ▼ SPAWAR Help Desk starts Distance Support at start of CASREP
- ▼ SPAWAR FRD and FSO start working on-site support processes prior to formal pass



# Recent Fleet Support Successes



# In-Service Programs

## ▼ Communications

- SATCOM
- UHF Comms
- HF Comms
- BISOG
- Common Data Link
- Sub Comms

## ▼ Networks and Applications

- Battle Space Awareness
- METOC
- GPS Navigation
- Other





# In-Service Sustainment Advocacy

## POM 14

▼ FRD / SWE coordination resulted in submission of 7 prioritized C4I POM 14 issues:

- Addresses HF Comms neglect
- Establishes TVS as a POR
- Fully funds FSET

▼ Net Effect: additional \$30.6M to sustain C4I

**HF Systems (Legacy HF Systems Sustainment)**

LI: 4B7N PE: OMN 0708012N  
Stakeholder Priority: 4 of 34  
Flag Champion: RDML Rainey  
Resource Sponsor: N2/N6

**Capability/Program Description:**  
Voice/data communications Provides means to transfer data communications in the 2-30MHz frequency range. Provides the communicators path for Data LINK, HFIP, and CSO/ESG voice coordination communications.

**Rationale for Adjustments:**  
Insufficient O&M funding for sustainability. Must provide sustainment for HF Legacy systems which includes: HF Legacy, HFRG, and HF Tilt systems maintenance and sustainability to include life cycle support, HW configuration management, ISEA support, Training, and ILS support to the Fleet Fund maintenance of legacy equipment with an average age of 50 years.

**Impact of Adjustment(s) (Capability, Financial, Programmatic):**  
HF systems help desk will be unable to respond to Fleet Support requests. Potential impact to Strike Groups ability to meet operational mission due a greater maintenance risk. Reduces likelihood of technology improvements required to integrate with Battle Force Tactical Network (BFTN) intended to support US & Allied/Coalition communications in a SATCOM derived environment.

New Program	FY 12 or 13 Adjustment Required						Significant Congressional Issues
	FY13	FY14	FY15	FY16	FY17	FY18	
POM13(OMN)	0.6	0.6	0.6	0.6	0.6	0.6	3.2
POM14(RDML)	3.4	3.5	3.5	3.5	3.6	3.6	17.8
Delta(OMN)	2.8	2.8	2.8	2.8	2.9	3.1	14.6
OTF (Funding Schedule)	0	0	0	0	0	0	\$14.6M funded
POM13	0	0	0	0	0	0	
POM14(RDML)	0	0	0	0	0	0	

UNCLASSIFIED

6 of 7 Fleet priority issues funded by N2/N6



# Installation Program Office Mission and Goals

---

## ▼ Mission

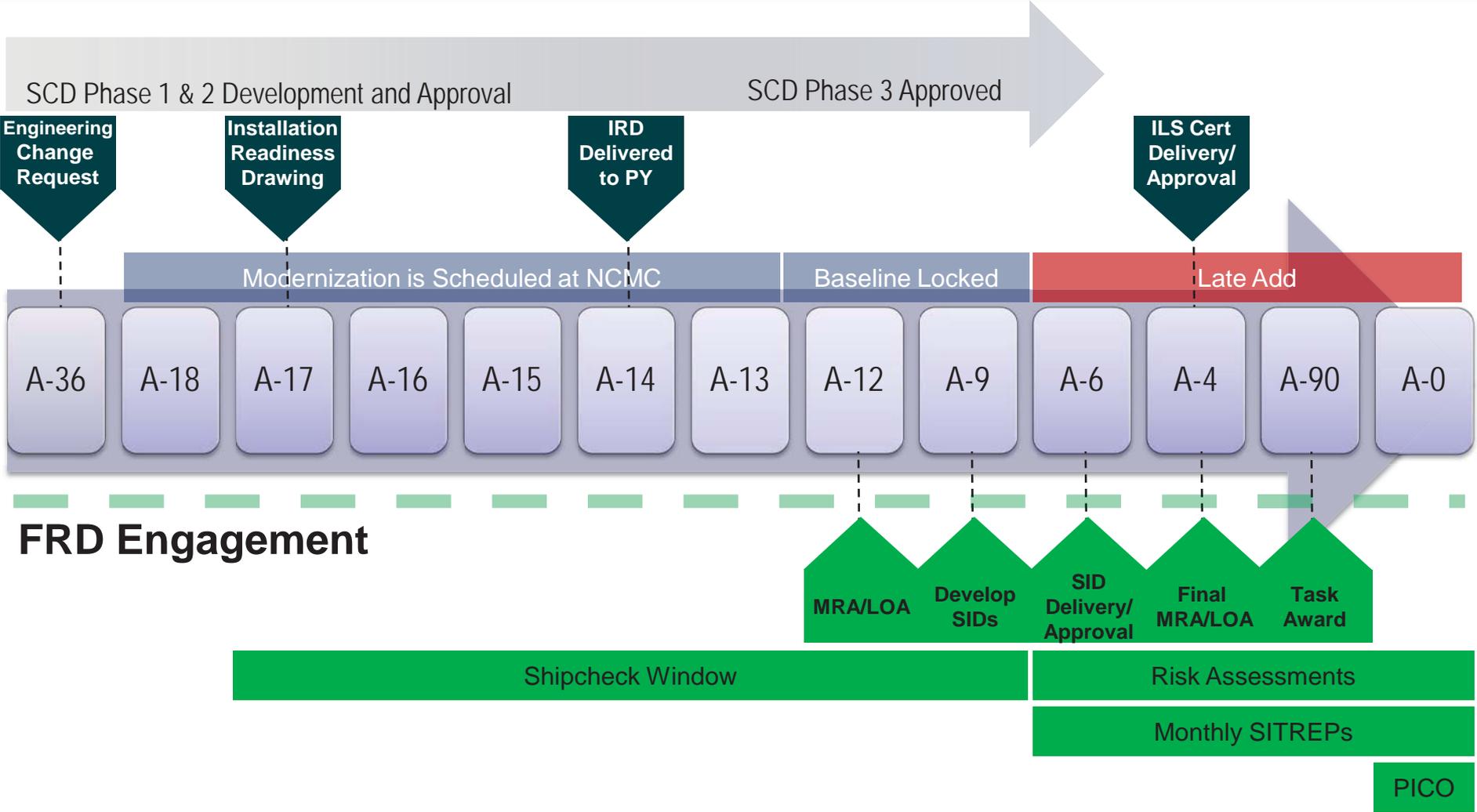
- The FRD Installation Program Office delivers C4I systems that enable Information Dominance for the war fighter

## ▼ Goals

- Improve Installation Cost Efficiency
- Improve Installation Process Effectiveness
- Strengthen Installation Customer Relations



# Afloat Installation Timeline: FRD Engagement and Challenges



FRD Continually Working to Meet NMP Milestones

# Achieving Installations Success

Develop and Promulgate the Plan Early

Provide Quality GFI/Workscope on Time

Adhere to NMP Milestones

Execute Funding on Time

How

- ▼ Alignment with Acquisition Fielding Strategy, Budgets, and Availabilities
- ▼ Coordination with Platform PMWs

Result

- ▼ Provides visibility to MOD Stakeholders

The screenshot shows the SPAWAR Execution & Installation Planning interface. The main table displays the following data:

Select	Job ID	FY	Execution FY	Subhead	Postcode	PKM	Identifier	Ab.	Ship/Command
<input type="checkbox"/>	58048	2011	2012	M2DA	DA071	PIVW	SA CS 0047 71717 K 00	COMSEC KVV-7MKNV-19H C	USS ANZO
<input type="checkbox"/>	58084	2011	2012	M2DA	DA071	PIVW	SA CS 0047 71717 K 00	COMSEC KVV-7MKNV-19H C	USS PORT ROVAL
<input type="checkbox"/>	83708	2011	2012	M2DA	DA018	PIVW	SA CS 0047 76610 K 00	DERIVABLE RARCS WORKSTATION	USS VELLA GULF
<input type="checkbox"/>	87484	2011	2011	M2DA	DA070	PIVW	EC 77388-11 CND-GSE HW SERVER SRR ONLY	SERVER SRR ONLY	USS THACH
<input type="checkbox"/>	87488	2011	2011	M2DA	DA070	PIVW	EC 77388 CND-GSE HW SERVER INSTALL	SERVER INSTALL	USS REUBEN JAMES
<input type="checkbox"/>	87477	2011	2011	M2DA	DA070	PIVW	EC 77388 CND-GSE HW SERVER INSTALL	SERVER INSTALL	USS CURTS

# Achieving Installations Success

Develop and Promulgate  
the Plan Early

**Provide Quality GFI/  
Workscope on Time**

Adhere to NMP Milestones

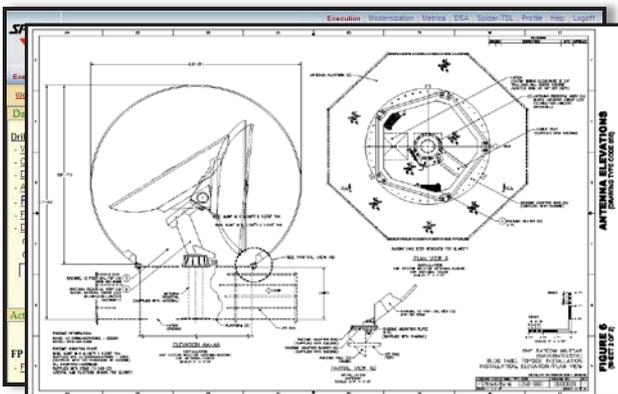
Execute Funding on Time

How

- ▼ Coordination with ISEA/Vendor
- ▼ Delivery of IRDs, ECRs, SCDs & SPEG SOVTs

Result

- ▼ Leads to on-time delivery of SIDs



# Achieving Installations Success

Develop and Promulgate the Plan Early

Provide Quality GFI/ Workscope on Time

**Adhere to NMP Milestones**

Execute Funding on Time

How

- ▼ Start early
- ▼ Manage risk

Result

- ▼ Reduces extra work
- ▼ Avoids Late Adds, generation of risk forms, BCRs, etc.

Program Level Risk Status for PMW 130

Program Name	Total Risk	Total Risk Pct	IRDRCD Risk	IRDRCD Risk Pct	All Maturity Risk	All Maturity Risk Pct	SCD PH1/SCCP Risk	SCD PH1/SCCP Risk Pct	SCD PH2/JCF Risk	SCD PH2/JCF Risk Pct
ALLPROGRAMS	35%	35%	35%	35%	31%	31%	32%	32%	29%	29%
Computer Network Defense	64%	64%	87%	87%	65%	65%	60%	60%	61%	61%
Crypto Products	12%	12%	0%	0%	0%	0%	0%	0%	0%	0%
Electronic Key Management System	15%	15%	0%	0%	2%	2%	1%	1%	2%	2%
Integrated Shipboard Network System	100%	100%	0%	0%	100%	100%	100%	100%	100%	100%
Public Key Infrastructure	3%	3%	0%	0%	0%	0%	0%	0%	0%	0%
Radiant Mercury	4%	4%	0%	0%	0%	0%	0%	0%	0%	0%
Secure Voice	14%	14%	0%	0%	0%	0%	0%	0%	0%	0%



# Achieving Installations Success

- Develop and Promulgate the Plan Early
- Provide Quality GFI/Workscope on Time
- Adhere to NMP Milestones
- Execute Funding on Time**

## How

- ▼ Have a strategy for CRA
- ▼ Design Services Allocation (DSA) funding
- ▼ Send OPN \$ per Fielding Plan

## Result

- ▼ Early contract identification
- ▼ Maximizing coordination with other installs
- ▼ On-time SID delivery
- ▼ Reduces start-up delays

**ORDER FOR WORK AND SERVICES/DIRECT CITATION**      PW# 1400181809

THIS ORDER MUST BE ACCEPTED ON A FUNDABLE BASIS AND/OR DIRECT CITATION AND IS SUBJECT TO THE CONDITIONS LISTED ON THE REVERSE SIDE. (Check appropriate boxes)

3. REFERENCE NUMBER      4. FUNDS EXPIRE ON      5. WORK COMPLETION DATE      6. DATE PREPARED      7. DOCUMENT NUMBER      7. AMENDMENT NO.

087002013      08/00/2013      08/00/2012      01/31/2011      N000091W002024      BASIC

8. FROM: COMMANDING OFFICER  
SPACE & NAVAL WARFARE SYS COMM  
4301 PACIFIC HWY, Bldg. 017  
3205 OCEANO CA. 90210-8927

9. FOR DETAILS CONTACT: OLIVIA WIGNALL 866-637-0655  
NIK SIMON 858-637-0425

10. TO: Puget Sound Naval Shipyard  
1400 Ferguson Ave Bldg 914  
Bremerton WA 98314-5001

11. MAIL BILLINGS TO:  
All conditions and limitations on attachment MUST be complied with

12. ACCOUNTING DATA TO BE CITED ON RESULTING BILLINGS

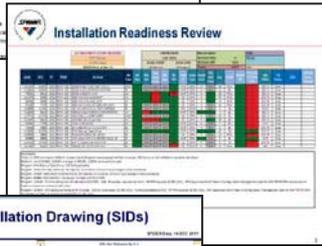
A	B	C	D	E	F	G	H	I	J	K	L
ACM	APPROPRIATION	OBJ	BU	CLAS	CURR	SA	AAA	HT	FAA	COST CODE	AMOUNT
AA	11711810	MSPD	253	00039	0	050120	20	000000	A0000071297		\$55,450.00



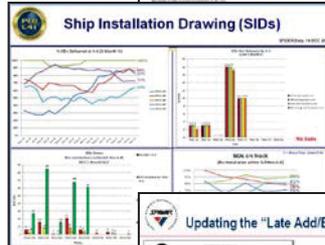
# Installation Readiness and Maturity Initiatives

1 Acquisition Installation Readiness Status

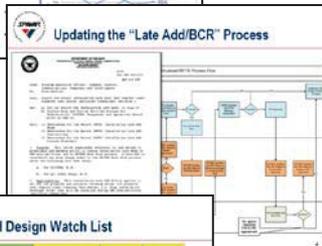
2 Installation Readiness Status (IRS) Tool



3 Installation Metrics Tracking



4 Baseline Change Request (BCR)



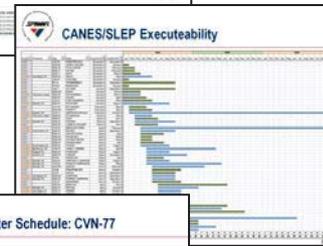
5 Design Watch List

6 PAC/LANT Reporting Consistency

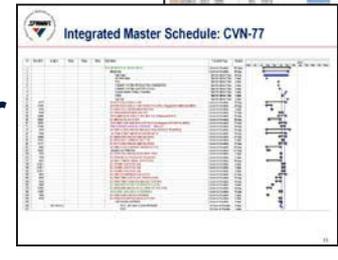
7 GIC Task Order Strategy

8 FRD Installation Cost Reporting

9 CANES and SLEP Production Capacity Review



10 Integrated Master Schedule



Continuing to Improve the Process and Identify Efficiencies



# SSC Pacific Opportunities & Challenges

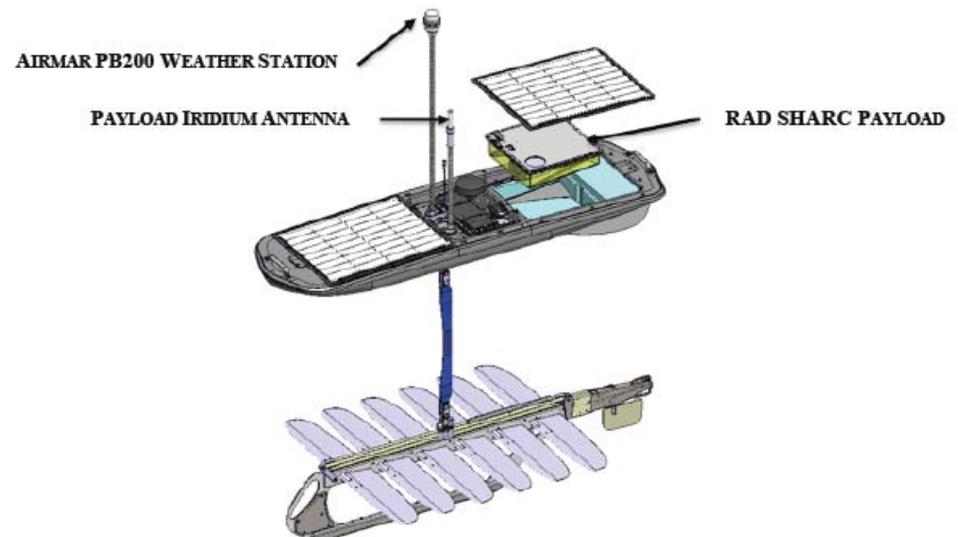
October 9, 2012

Presented by:  
Lee Zimmerman

Net-Centric Engineering and Integration  
National Competency Lead  
SPAWAR Systems Center Pacific

# Topics To Cover

- ▼ SSC Pacific Background
- ▼ Opportunities
  - Scope
  - Growth and Focus Areas
  - Ways to work with us
- ▼ Challenges





# Where SSC Pacific Fits In

## ▼ Admiral Brady, Commander, SPAWAR

- Strategic guidance
- SPAWAR 5.0 & SPAWAR Chief Engineer (CHENG) – Navy enterprise-level engagement, enterprise systems engineering, tech authority
- Sponsor for work supporting enterprise architecture, studies



## ▼ PEO C4I & PEO EIS

- Acquire C4ISR and Business IT systems for Navy
- PEO C4I is largest single customer, we provide embedded personnel and technical support



## ▼ Fleet Readiness Directorate (FRD)

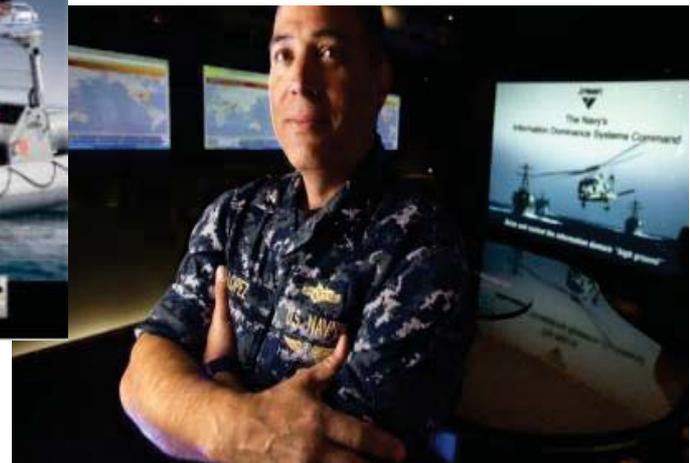
- Sustains the C4ISR systems PEO C4I acquired
- Growing customer – shift in funding from PEO C4I



# Where SSC Pacific Fits In (Cont.)

## ▼ SSC Pacific and SSC Atlantic

- Supports the SPAWAR HQ – especially the CHENG
- Provides much of the technical workforce for PEO C4I and FRD
- Supports wide variety of Navy customers – primarily for non-Program of Record projects
- Supports Joint and National customers – where benefits the Navy
- Foreign Military Sales
- Work for private party – access to unique facilities





# Our Vision and Mission



Enable information dominance for our Naval, Joint, National and Coalition warfighters through research, development, delivery and support of integrated capabilities

*SSC Pacific will be the Nation's pre-eminent Technical Leader for Integrated C4ISR Solutions for Warfighter Information Dominance*



# Our People... *Our Greatest Strength*

## FY11 Profile

<u>CIVILIANS</u>	<u>4136</u>
Scientists & Engineers	2065
Technicians	361
Tech Specialists	624
Administrative	821
Clerical	205
Ungraded / Other	51
ST	3
SES	6
<u>MIL</u>	<u>222</u>
Enlisted	157
Officers	65
<b>TOTAL</b>	<b>4358</b>

### New Professional (NP) Program:

- ✓ >1800 applicants for <75 positions
- ✓ Average GPA 3.60
- ✓ Participation in 25 campus recruitment and diversity/affinity group conferences

### Highly credentialed and educated workforce:

- ✓ 159 PhDs
- ✓ 950 Masters



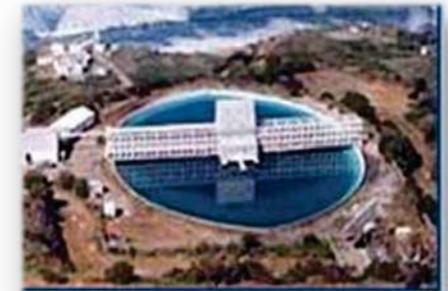
**Best Place to Work**

2,214 SCI clearances



# Unique Facilities

- ▼ Enterprise Engineering & Certification Lab
- ▼ Antenna Pattern Model Range
- ▼ Transducer Evaluation Center
- ▼ Ballistic Missile Defense Test Facility
- ▼ DoD High Performance Computing Center
- ▼ San Clemente Island – Operating Range
- ▼ Cyber Security Research and Testing Lab
- ▼ Networks across all security domains
- ▼ Anechoic Test Facilities
- ▼ Marine Mammal Facilities



# Opportunities





# Economic Impact (FY11)

- ▼ SSC Pacific – provides more than \$455M in salaries in San Diego
- ▼ SSC Pacific – awarded more than \$1.3B in FY11
- ▼ SSC Pacific total obligated authority was more than \$2.5B during FY11
  - More than 60% went to industry... and nearly 27% of that percentage went to small businesses



# Where SPAWAR Works





# Ways SSC Pacific Works With Industry

- ▼ Integrated government/contractor team on SSC Pacific contract
- ▼ As partners on POR program on PEO contract
- ▼ Contract agent for DARPA, DITRA, and other organizations
- ▼ Simplified acquisition (procurement)
- ▼ Cooperative Research and Development Agreements (CRADA)
- ▼ Broad Agency Announcements like DoN Rapid Innovation Fund BAA
- ▼ Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR)
- ▼ Patent license agreements

# Areas of Interest

- ▼ System-of-system engineering
- ▼ Architecture
- ▼ Software development
- ▼ Unmanned systems
- ▼ Network design, virtualization, data centers
- ▼ IA
- ▼ Cyber
- ▼ Integrated logistics support



# Areas of Interest



Iridium SPIRNET chat

- ▼ Moving and understanding data from networked sensors
- ▼ Implementation of Joint Information Environment
- ▼ Command center design and implementation
- ▼ Space C2
- ▼ Cloud computing
- ▼ Mobile systems
- ▼ Anti-terrorism/Force Protection systems

# Challenges



# Challenges

- ▼ Budget pressure
  - FY13 - unknown impact on project funding
  - Challenge to sustain existing systems while develop follow-on
  - Need to do more with less
  - Need to extend life of systems in the field
- ▼ Travel and conference restrictions
- ▼ Expected retirement of baby boom generation
- ▼ Challenge of hiring experts in key interest areas
- ▼ Increased emphasis on technical CORs

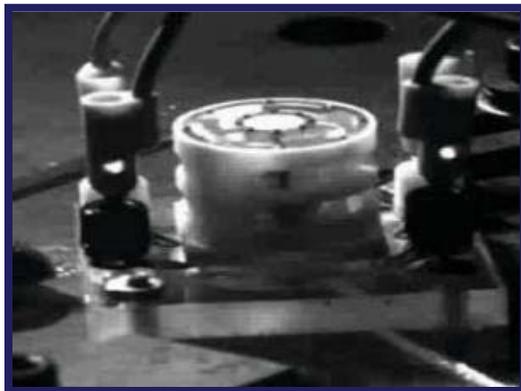


**Mast Clamp  
Current Probe**

# Challenges

- ▼ Trade-offs
  - Technology insertion vs. system stability
  - Demand for mobile, "bring your own", cost savings vs. security
  - Sustainment of existing systems vs. security vulnerabilities
- ▼ Increasing cyber situation awareness, collapsing networks, improving IA posture
- ▼ Maintaining S&T workforce, transitioning technology

**Energy Harvester**



**Microbial Fuel Cell**





## POCs

- ▼ Elizabeth Altmann, Program Manager for SPAWAR's Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR), [elizabeth.altmann@navy.mil](mailto:elizabeth.altmann@navy.mil), 619-226-5296
- ▼ Dean Dickau, SSC Pacific Deputy for Small Business, [dean.dickau@navy.mil](mailto:dean.dickau@navy.mil), 619-553-4327
- ▼ Brian Suh, Director for SSC Pacific's Technology Transfer Office, [brian.suh@navy.mil](mailto:brian.suh@navy.mil), 619-553-5118