



Space and Naval Warfare System Command



15 NOV 2011

Presented to:
Armed Forces Communications
and Electronics Association

Presented by:
CAPT Joe Beel
Commanding Officer
SPAWAR Systems Center Pacific



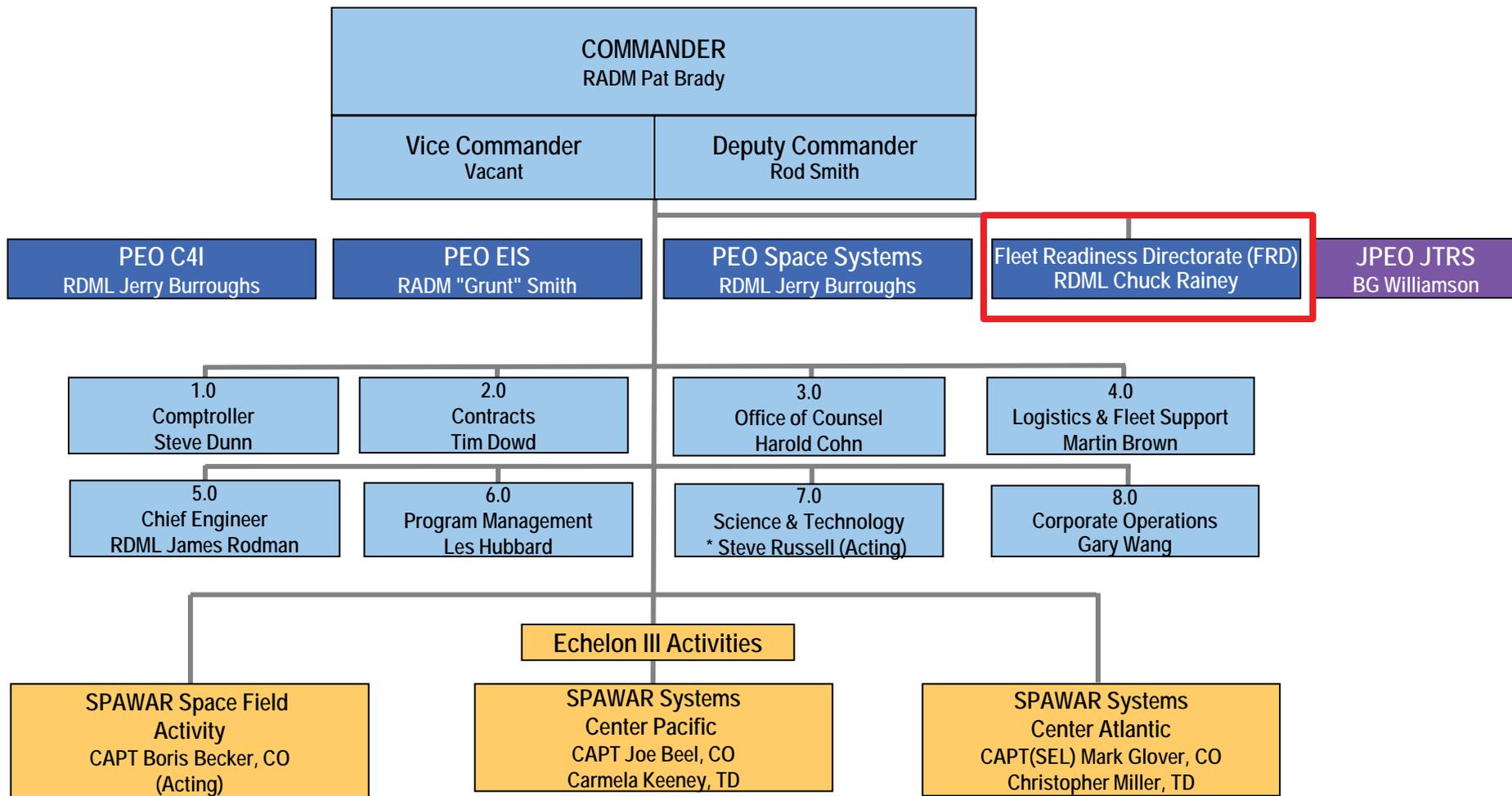
Strategic Environment

- Drawdown from two major wars – Iraq and Afghanistan
- Reduced federal budget..., dwindling resources..., shifting priorities
- Emphasis on Information Dominance





SPAWAR Organization: 1 October 11



* Rob Wolborsky assigned as Data Center Consolidation Lead



FRD Key Tenets / Principles for Realignment

▼ 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 players**: Fleet Systems Engineering Teams, Program Offices (PMW's), In-Service Engineering Agents, Fleet Support Teams, Training Support Agent

▼ Permits PEO's/PM's to increase their focus on acquisition



IP In The Cockpit



The squadron is assisting in relief efforts following the magnitude 9.0 earthquake and tsunami

Iridium SPIRNET chat



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News Release
United States Navy

Release No. SSCPAC-2011-323
March 24, 2011

Navy Aircraft Using New SPAWAR Technology to Support Search and Rescue Operations in Japan

SAN DIEGO — A new network architecture designed by Space and Naval Warfare Systems Command (SPAWAR) is providing enhanced command and control capabilities for naval aircraft operating from USS RONALD REAGAN (CVN-76) in support of Operation Tomodachi, the international humanitarian relief effort in Japan.

Conceived by engineers assigned to the airborne networking team at SPAWAR Systems Center Pacific (SSC Pacific), the network solution was originally intended to address an Urgent Operational Needs Statement (UONS) from United States Navy Central Command in Bahrain. The UONS sought beyond line of sight classified connectivity for E-2C "Hawkeye" aircraft operating in Iraq and Afghanistan.

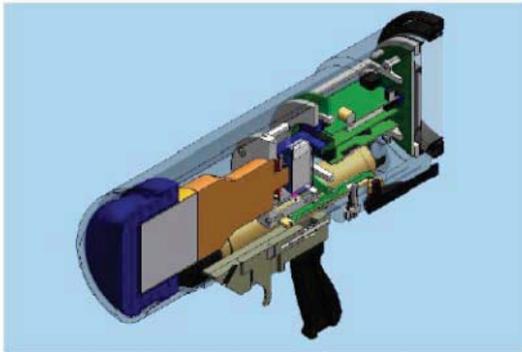
"We recently received some extremely positive feedback from aircrews flying E-2C Hawkeye aircraft telling us this network solution, designed for combat, is making a huge, positive impact on the Navy's ability to support search and rescue, and resupply operations," according to CDR Justin Fine, Project Lead for the E-2C airborne networking team at SSC Pacific. "The network is giving the Navy's command and control aircraft an improved and additional ability to relay real time data to other operational assets, assisting first responders on the ground."



Search and Rescue support

RAD SHARC

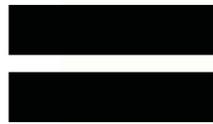
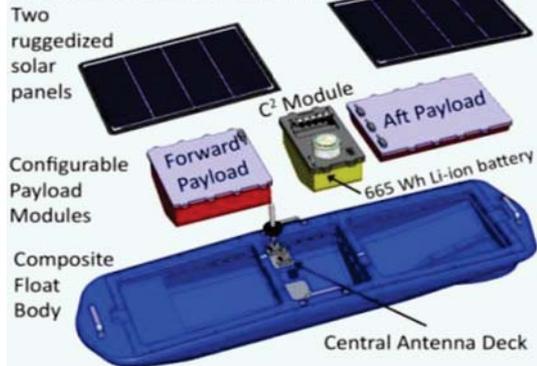
Employ Sensor Hosting Autonomous Remote Craft (SHARC) equipped with gamma detector to provide radiation measurements instantly over the broad area in vicinity of Fukushima Nuclear Power Plant 1, Reactors 1-4.



AN/PDR-78 Underwater Gamma Detector



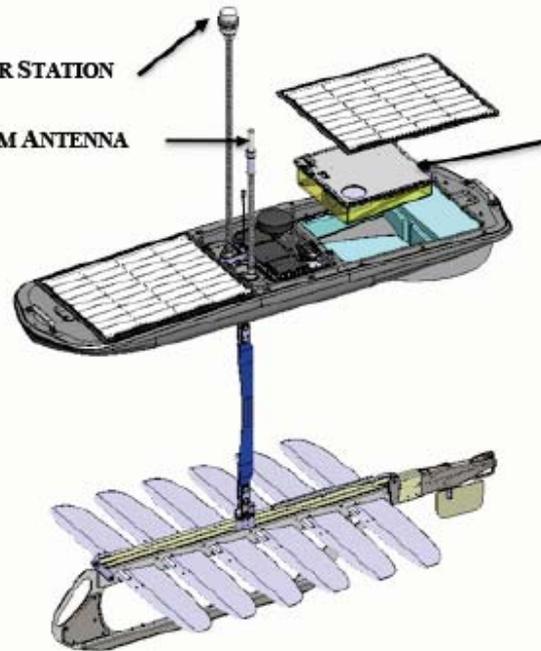
Modular Payload Architecture



AIRMAR PB200 WEATHER STATION

PAYLOAD IIRIDIUM ANTENNA

RAD SHARC PAYLOAD





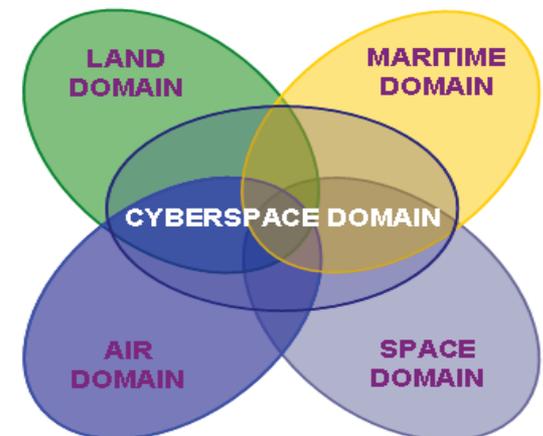
Snapshot... a few near-term priorities and projects



Integrated Cyber Operations (ICO) Portfolio

- ▼ Integrated Cyber Operations - close coupling of computer network **defense**, computer network **exploitation**, and computer network **attack** development and engineering
- ▼ Enable U.S. forces to **maneuver in the cyber domain** while **denying adversary's ability** to do the same... all while simultaneously **protecting** U.S. critical infrastructure and information
- ▼ Include network scanning/mapping systems, vulnerability analysis, penetration testing, red teaming, exploit and attack tool development, along with many other activities

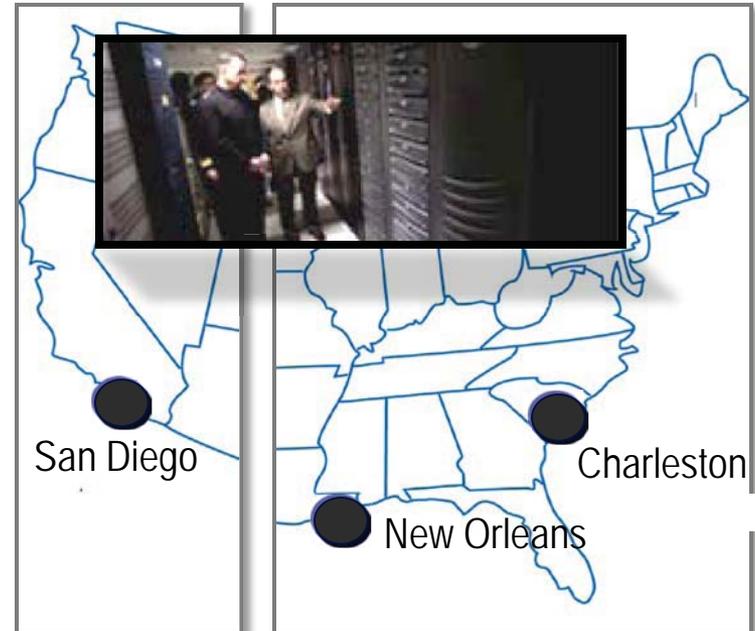
All of the warfighting domains intersect...



DoN Data Center Consolidation Task Force

- ▼ Assistant Secretary of the Navy for Research, Development & Acquisition
 - Directed COMSPAWAR to take the lead for Data Center Consolidation
- ▼ Consolidate 58 (out of 114) Navy legacy data centers into SPAWAR Data Centers from FY12 - FY17
- ▼ Objectives
 - Realize significant cost savings
 - Improve Navy cyber security posture - meet or exceed IA controls
 - Implement COOP and DR for all Navy data

State-of-the-art 36,000 square-foot Data Centers/system hosting facilities



- ✓ Official Navy Defense Enterprise Computing Centers (N-DECC)
- ✓ Continuity of Operations & Disaster Recovery
- ✓ Virtual server technology

Executing Task Force with Program Management and Engineering Rigor

Enterprise Licensing



Aligns with



▼ Consolidating and centralizing acquisition IT hardware, software and services

▼ ESI leverages the DoD's combined buying power with commercial software publishers, hardware vendors and service providers



Cloud Computing

- ▼ Commercial cloud computing services to deliver unclassified IT services
- ▼ Look at:
 - Commercial cloud-based services
 - Software as a Service (SaaS)
 - Platform as a Service (PaaS)
 - End-User Devices
 - Networks
 - Operations
 - Business Case





S&T: What's Important to Us?

- Accelerate Information Dominance (ID) capabilities
- Address future challenges in cyber, information assurance, and bandwidth efficient networks, communications systems and sensors which enable ID.



Information Dominance Challenges:

- Speed of Technology Transition
- Technology Maturity & Usability
- Open architectures & interoperability
- Reducing total ownership costs, and developing technology solutions that are enterprise-wide solutions (not one-of-a-kind).
- Total cost of energy for C4ISR Systems
- Build strategic alliances with Customers



CONNECT



Building Our Future Workforce

Educational & Community Outreach

St Mary's Academy Middle School Girls Day Out



- In FY 2011 to date: 238 outreach events
- 28 FIRST robotics teams
 - 100 volunteers
 - 7500 hours in community
 - 5500 volunteer hours



CyberPatriot
National High School Cyber Defense Competition



Gompers Charter Middle School Science Night

SMART Scholarship Program

High School and College Interns

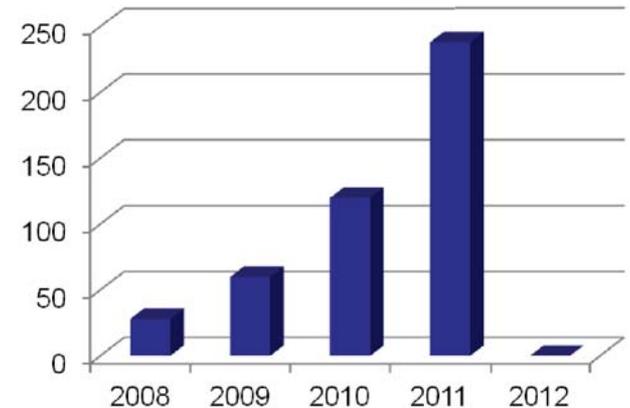
UCSD
"ENSPIRE"



Material World Modules



NUMBER OF EVENTS





ROBO SUB

- Hosted annual Association for Unmanned Vehicle Systems International (AUVSI) Foundation competition 13-17 JUL 2011
- College and High School teams from across the nation and the world
- Open to the Public!

Space and Naval Warfare Systems Center Pacific hosts the

14th International ROBO SUB COMPETITION

Challenging high school and college student teams to perform realistic missions in an underwater environment

JULY 13-17, 2011

At the U.S. Navy's TRANSDEC Pool on San Diego's Point Loma

FREE TO THE PUBLIC
9:00 AM TO 5:00 PM

robosub.org

Questions? Contact the SSC Pacific Public Affairs Office at 619-553-2717.



Spectators can watch student teams from around the world as they prepare their unique vehicles and put them to the test during the competition.

Special Feature!
SeaPerch Demonstration, July 14-17

Area elementary and middle school students showcase underwater vehicles of their own design through the SeaPerch "Teach, Build, Become" Program; www.seaperch.org.

How to get to the U.S. Navy's TRANSDEC Pool
Signs near SSC Pacific (driving south on Catalina Boulevard in Point Loma toward Cabrillo National Monument) will direct spectators to parking.

Can't attend?
See live webcast of finals, Sun., July 17, 1:00-5:00 PM PST.
robosub.org



The RoboSub Competition is co-sponsored by the Association for Unmanned Vehicle Systems International Foundation and by the Office of Naval Research. The SeaPerch Demonstration is sponsored by the Office of Naval Research and the Society of Naval Architects and Marine Engineers.



American Indian Science and Engineering Society (AISES) Conference

Mission: to substantially increase the representation of American Indians and Alaskan Natives in engineering, science, and other related technology disciplines.





Wounded Warrior

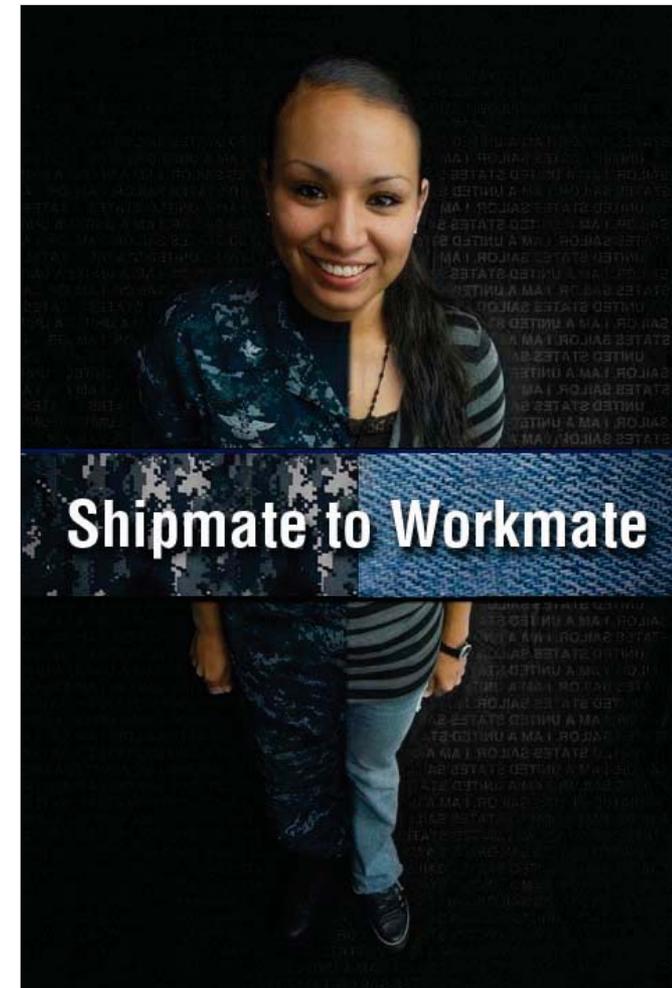
- ▼ Establish relationship between SDSU Troops to Engineers program and Student Temporary Hiring Program (STEP) / SDSU Research Foundation
- ▼ Developing a WW Battalion outreach initiative to engage WW's waiting for discharge
 - Short syllabus focused on engineering hands on robotics
 - Introduce STEM interested WW's to SPAWAR technical work
- ▼ SSC Pacific WW hiring goal of 21 for FY 12
 - Focusing on veterans with a 30% or greater VA documented disability
- ▼ Troops to Engineers Day at SSC Pacific
 - Introduce students to the scope of our C4ISR work
 - Planned for Jan/Feb 2012

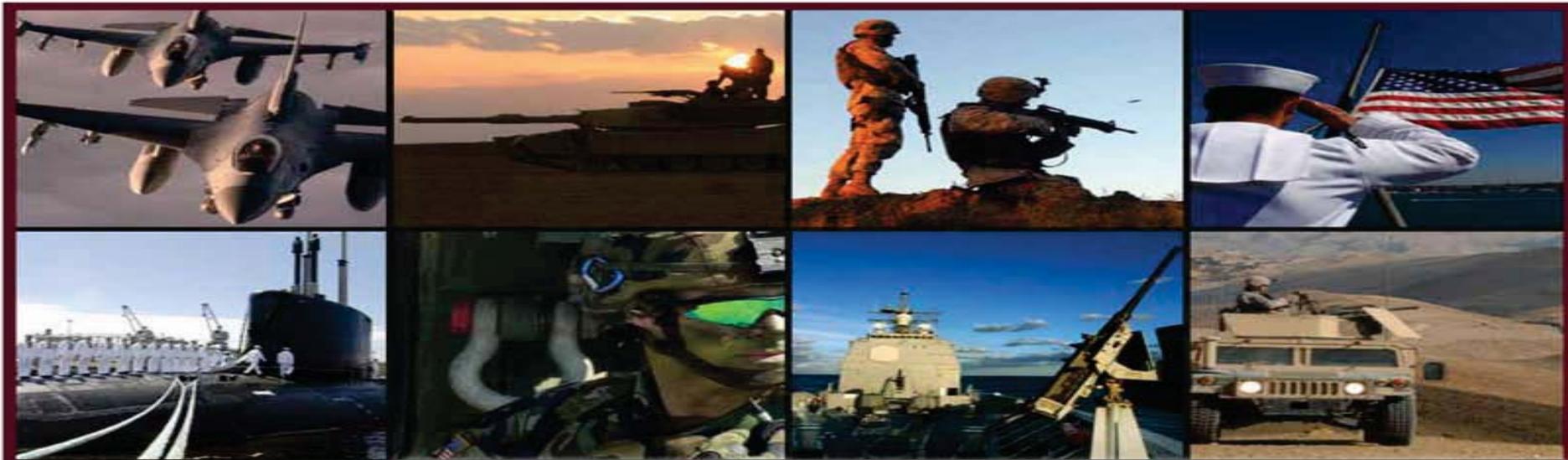




Shipmate to Workmate

- ▼ Working w/other SYSCOMS on approach to reach out to ERB sailors
 - Supporting Career Fairs in Fleet Concentration Areas
- ▼ Affected population w/in SPAWAR
 - Awaiting results of board
 - Will analyze individual skill sets, training & education
- ▼ Work w/hiring Managers on potential transition paths to civilian employment
 - Direct hire into Full Time Vacancies via USA Jobs
 - Part time SCEP w/Post 9/11 GI Bill





Sponsorship spaces are still available, but are going quickly. Be sure to reserve your space soon.

Sponsorship Opportunities Still Available for MAY 2012

Diamond, Platinum, Gold, Silver, Bronze and Several Types of Golf Sponsorships.
FOR MORE INFORMATION PLEASE SEE:
 Become a Sponsor - http://symposium.afcea-sd.org/?page_id=22
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 Exhibitors - http://symposium.afcea-sd.org/?page_id=12
 Contact Us - http://symposium.afcea-sd.org/?page_id=9
 Registration - http://symposium.afcea-sd.org/?page_id=30



OPTIMIZED TOTAL OWNERSHIP COST - "AFFORDABLE & SUSTAINABLE INFORMATION DOMINANCE"

Artwork Donated By: INNOVA SYSTEMS

Graphics Donated By: BRIGHTSPEAR





Information Operations C4ISR
Information Assurance
Cyberspace Speed to Capability
Full-Spectrum Dominance
Strategic Advantage
Decision Superiority
Information Dominance
Developing Common Solutions
Engineering Excellence
Adaptive Response
Fully Netted Integrated,
Sensors, Networks, Platforms,
Warriors and Weapons

**The Navy's
Information Dominance
Systems Command**

Seize and control the information domain "high ground"