

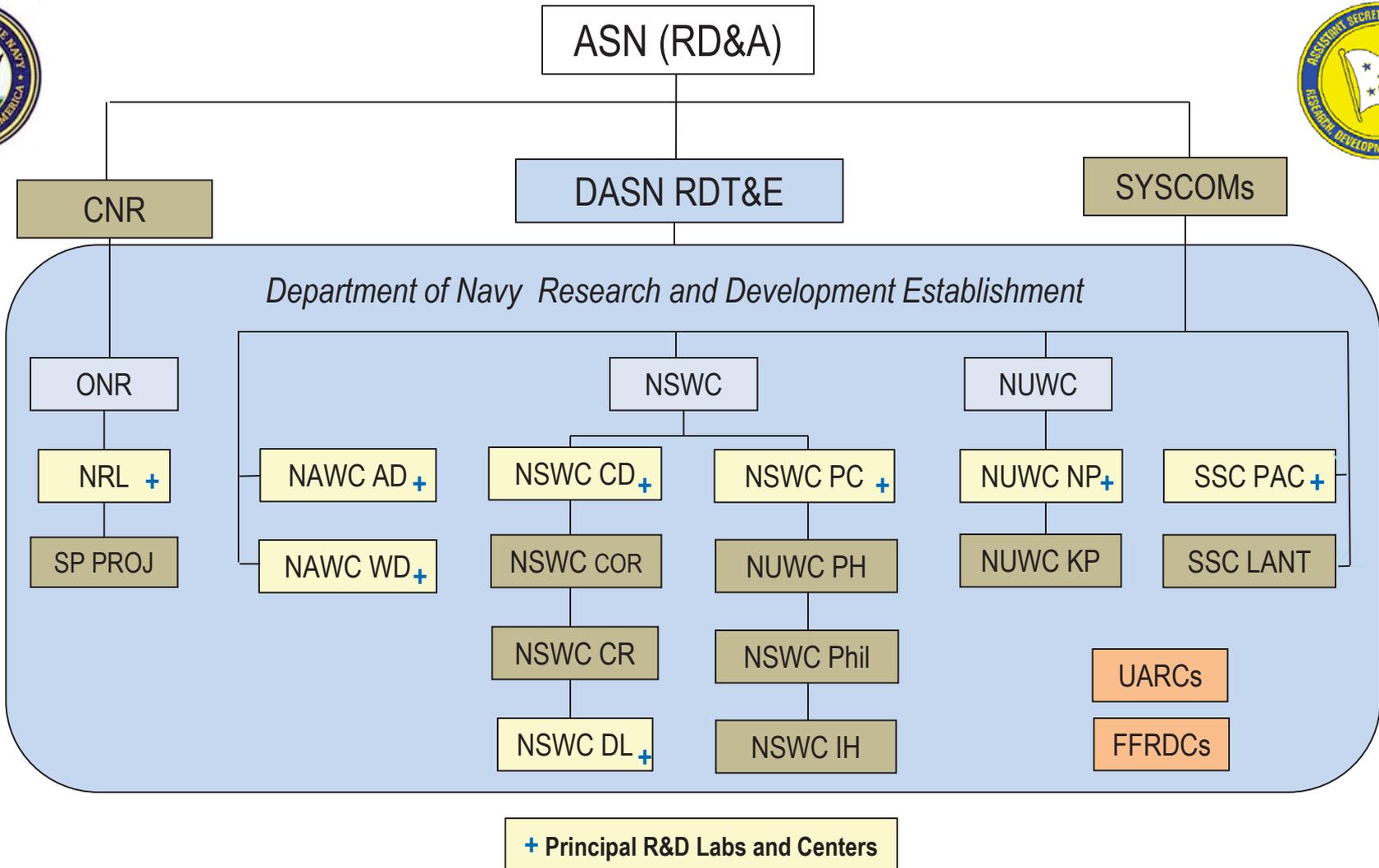


SPAWAR Systems Center Pacific FY15 EOY Brief to NDIA

02 February 2016

Ms. Carmela Keeney
SPAWAR Systems Center, Pacific
Executive Director (ED)

Naval Research & Development Establishment Operating Construct





SPAWAR Organization

PEO C4I

 RDML Boris Becker

COMMANDER
 RADM David Lewis
 Executive Director
 Pat Sullivan

PEO EIS

 Victor Gavin

PEO Space Systems

 RDML Boris Becker

Fleet Readiness Directorate
 RDML John Neagley

1.0 - Finance
 Karla Horn

2.0 - Contracts
 Nancy Gunderson

3.0 - Legal
 Amy Weisman

4.0 - Logistics & Fleet Support
 Martin Brown

5.0 - Engineering
 RDML Ailes

6.0 - Program & Project Mgmt
 Craig Madsen

7.0 - Science & Technology
 Dr. Steve Russell

8.0 - Corporate Operations
 Kimberly Kesler

Echelon III Activities

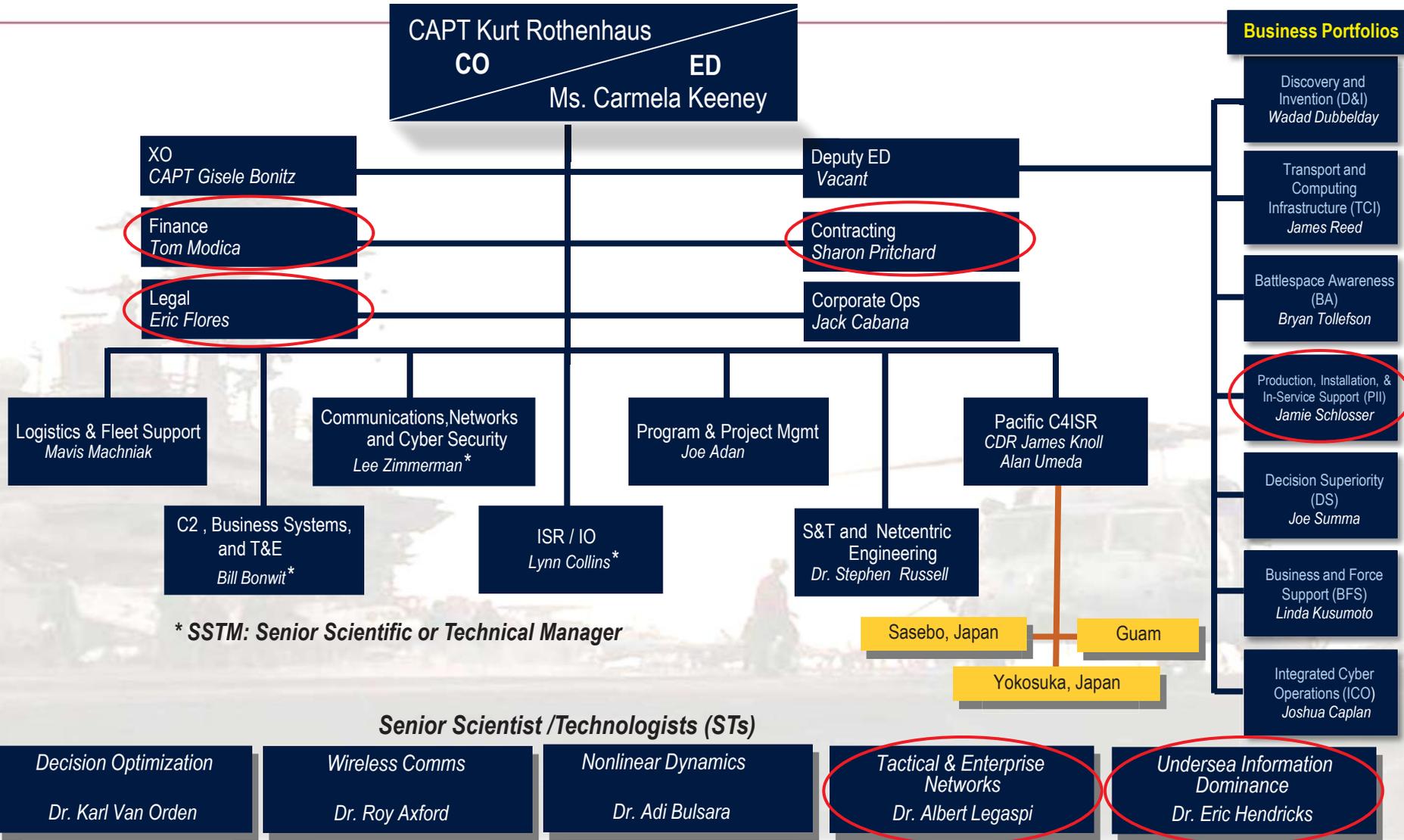
SPAWAR Space Field Activity
 CAPT EJ Hendrickson, CO
 Terry Duncan, ED
 148

SPAWAR Systems Center Pacific (Working Capital Fund)
 CAPT Kurt Rothenhaus USN, CO
 Carmela Keeney, ED
 4799

SPAWAR Systems Center Atlantic (Working Capital Fund)
 CAPT Scott Heller, CO
 Dave Monahan, ED (Acting)
 3773



SSC Pacific: Organization



FY15 Profile

Our People Are Our Greatest Strength

FY15 Profile

CIVILIANS 4588

Scientists & Engineers 2210

Tech Specialists 949

S&E Technicians 287

Specialists/Professionals 912

General Support 219

SES/ ST/ SSTM 11

MILITARY 211

Enlisted 142

Officers 69

TOTAL 4,799

**FY15 = \$2.5B
Total Obligation Authority**

New Professional (NP) Program:

✓ ~2000 applicants for 60-70 positions

Highly credentialed, educated workforce

✓ 187 PhDs

✓ 1,240 Masters



~ 35% of the workforce: Active Duty, Reservists, or Veterans

~ 400 Civilians Directly Supporting C4ISR with the Fleet Around the World

Capabilities – Across the Full Life Cycle

Today
The Navy in Operation

Installation and Support



Production, Installation
In-Service Support



Marine Mammals



Restoration and Repair

Tomorrow
The Navy in Construction

Engineering, Development,
Test and Evaluation



C4ISR for Unmanned Vehicles



Ballistic Missile Defense System



Enhanced Polar
Systems Gateway



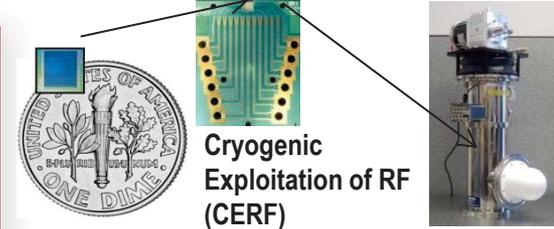
Mobile User Objective
System (MUOS)



C4I MILCON

Future
The Navy in Planning

Science and Technology



Cryogenic
Exploitation of RF
(CERF)

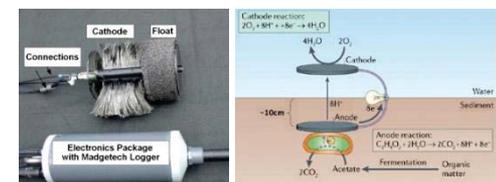


Nano Satellites



Mixed Reality

Solid State Crowbar



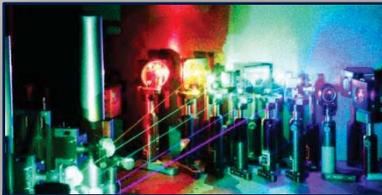
Microbial Fuel Cells: Free Power from the Mud!



FY15 S&T Focus Areas

- Total Ownership Cost Reductions
- Undersea Information Dominance
- Automated Multi-Platform Data Fusion
- Cyberspace Operations
- 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

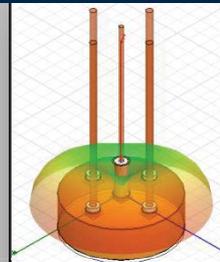
Investing in a Wide Range of S&T is Key to Meeting The DoD's Evolving C4ISR Challenge



Laser-Based Underwater Communications



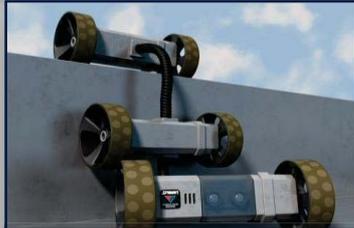
Undersea Wireless Power Transfer



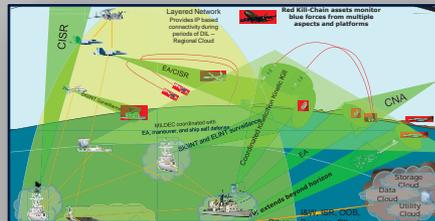
Advanced Antenna Research



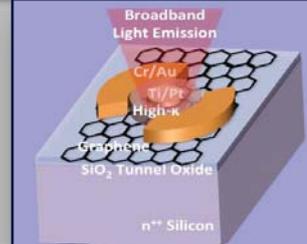
Mission Planning User Center Design



Unmanned Systems Adaptive Mobility



Electronic Warfare Battle Management



Graphene-Based Semiconductor Optoelectronics



Integrated Communications Extension Capability (ICE-Cap)



FY15 Fleet Support Highlights



Train, Maintain and Modernize

- ▼ Completed 771 C4ISR installations
 - CANES, NMT, SSEE, DCGS-N, COMSEC
 - USS Ronald Reagan (CVN 76) - First CANES Force Level install in a Compressed Planned Incremental Availability
- ▼ Conducted 145 training events; 1,121 students trained
- ▼ Performed 400 Integrated Logistics Support C4I systems certifications



Remain Ready

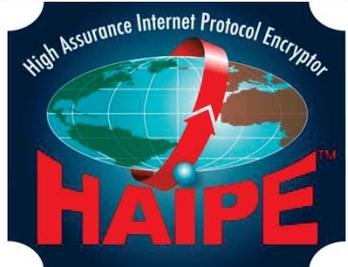
- ▼ Resolved 37,460* REMEDY trouble tickets
- ▼ Executed 546 Fleet Technical Assist requests
 - Top 3 Systems:
 - ISNS
 - GCCS-M
 - SCI Networks



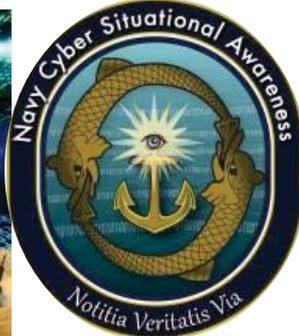
Ongoing

- ▼ Enterprise alignment of IMO policy & Processes
- ▼ Developing ITIL best practices to ISEA
- ▼ Developing & Implementing Capability-based ISEA
- ▼ OM&S - compliance with Navy and DOD audit requirements

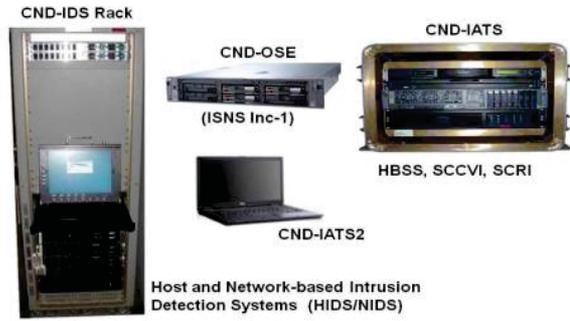
* Includes NTCSS



High Assurance Internet Protocol Encryptor (HAIZE)



Navy Cyber Situational Awareness



Computer Network Defense Afloat (CND-A)



Cybersecurity



Cyber TASE



Assured Information Dominance Through Cyber Operations



Characterization of Human Limitations and Impediments for Cyber Situational Awareness



Digital Forensics Expertise Development



2015 Significant Awards



Dr. Jose Romero-Mariona, Dr. Benjamin Taylor, Mr. John Stastny, & Mr. Walter Velasquez
ASN RD&A Top Scientists of the Year Award



Dr. Susan Berggren
Department of Defense Scientist of the Quarter



Dr. Dave Phillips
Federal Laboratory Consortium Award-Excellence in Technology Transfer



Ayax Ramirez
Mexican American Engineers and Scientists (MAES) Experto Tecnico Award



Robert Rush Jr.
Black Engineer of the Year Award-Technology Leader



Sarah Lauff
American Indian Science & Engineering Society (AISES) Award for Technical Excellence



SSC Pacific
Defense Acquisition Workforce Development Award-Gold Medal-Large Organization



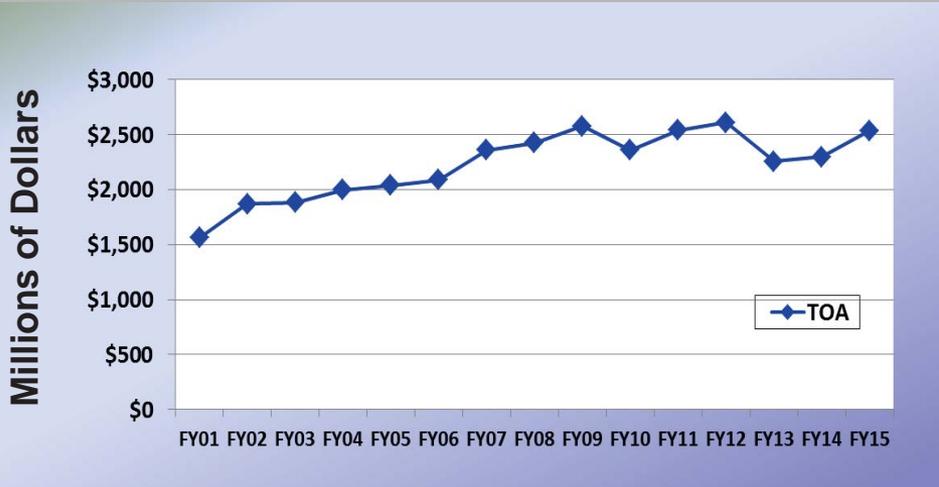
End of Year Snapshot



Customer Demand

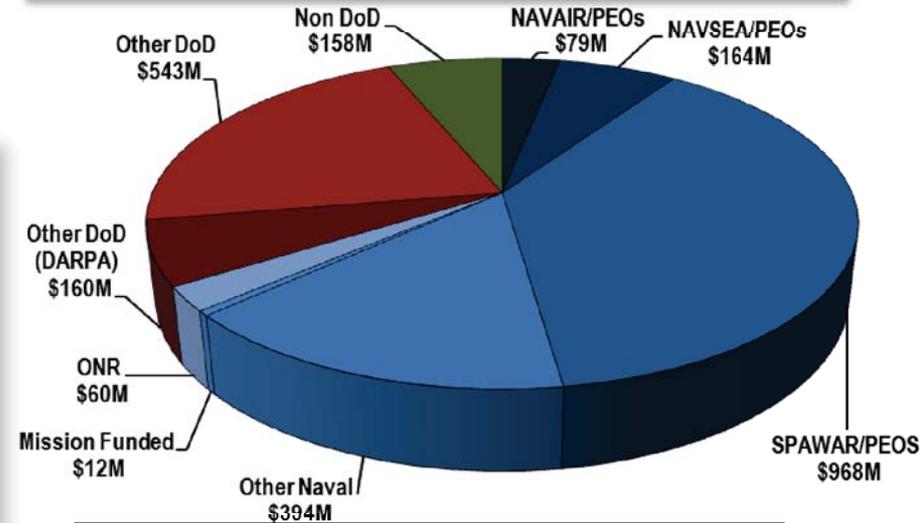
FY15 = \$2.5 B

Total Obligation Authority

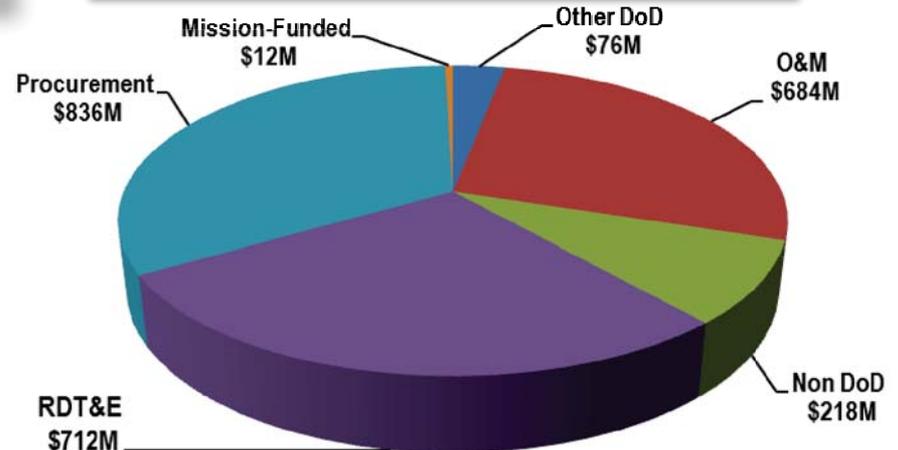


- ▼ Naval, Joint and National security projects
- ▼ Work must be within our mission
- ▼ Naval priorities addressed

FY15 CUSTOMERS



FY15 FUNDS TYPE





FY15 Contracts

TOTAL CONTRACTS

Competition: Target – 80%. Achieved 79.55% (Dollars)

Active contracts: 349 (D, C, and grants only)

Firms awarded contracts: 865 Different companies were awarded contracts & orders (including simplified acquisitions)

**Total
Amount
Obligated \$1B**

Small Businesses

TYPE	Achieved	Target
Small Business Awards	33.88%	26%
HUBZone Small Businesses	1.08%	0.8%
Disadvantaged Small Business	12.69%	6.3%
8(a) Small Business	3.07%	n/a
Woman-Owned Small Business	7.40%	3.8%
Service-Disabled Vet-Owned Small Business	2.41%	1.8%



Intellectual Capital and Partnerships – Industry and Academia

CRADA - Cooperative Research and Development Agreement

- ▼ Establish and foster R&D partnerships with industry and academia
- ▼ Advance technology and move innovation from the lab to the market and ultimately the warfighter

Partnering in Education and Community Outreach



FY15 Degree Recipients

- ▼ 26 Bachelor's
- ▼ 41 Master's
- ▼ 4 PhD's

Community Impact:

- ▼ 11,545 Students
- ▼ 47 Schools
- ▼ 683 Teachers
- ▼ 192 Events

Volunteer Data:

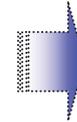
- ▼ 189 Volunteers
- ▼ 7,139 Total hours
- ▼ 6,109 Volunteer hours

PATENTS	FY15
Disclosures	119
Patents Filed	46
Patents Issued	60

PUBLICATIONS	FY15
Journal Article	183
Conf. Papers	289
TRs/TDs	64

Technology Transfer

- ▼ Promotes innovation and creativity with SSC Pacific technology
- ▼ Important pathway to move Navy innovation from lab to market and ultimately the warfighter

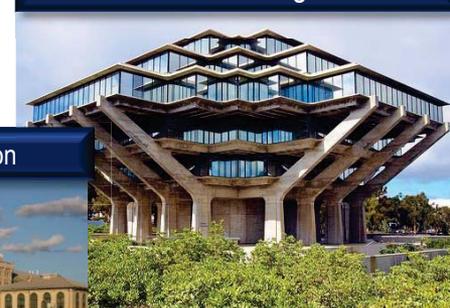


- ▼ Three San Diego based start-up companies formed as a result of licensing SSC Pacific technologies

San Diego State University



UC San Diego



Carnegie Mellon





Our Outlook

- ▼ Strong demand for:
 - Cyber and cyber security
 - Systems of systems engineering
 - Prototyping and rapid delivery of capabilities
- ▼ Continued budget pressure and focus on savings / affordability
- ▼ Focus on streamlining
- ▼ Cyber; Unmanned vehicles and human-machine teaming; Autonomy and machine intelligence; Assured C2
- ▼ C4ISR provider of choice across Naval, Joint & National domains



SSC PACIFIC

