



Space and Naval Warfare Systems Center Pacific

Command Overview

SSC Pacific Mission

From Concept to Capability via...



Research, development, engineering, and support of integrated C4ISR, cyber, and space systems across all warfighting domains and to rapidly prototype, conduct test and evaluation, and provide acquisition, installation, and in-service engineering support.

SSC PAC Support in the Pacific Region

Strategic Location



Only DoD Lab Located in a Major Fleet Concentration Area

SSC PAC: A Legacy of Discovery for 75 Years



Arctic Submarine Operations



Radar / EW



ARPANET



**Personalized Assistant
that Learns (PAL)**



NTDS



Laser Research



Ship-launched Torpedoes



SHF SATCOM



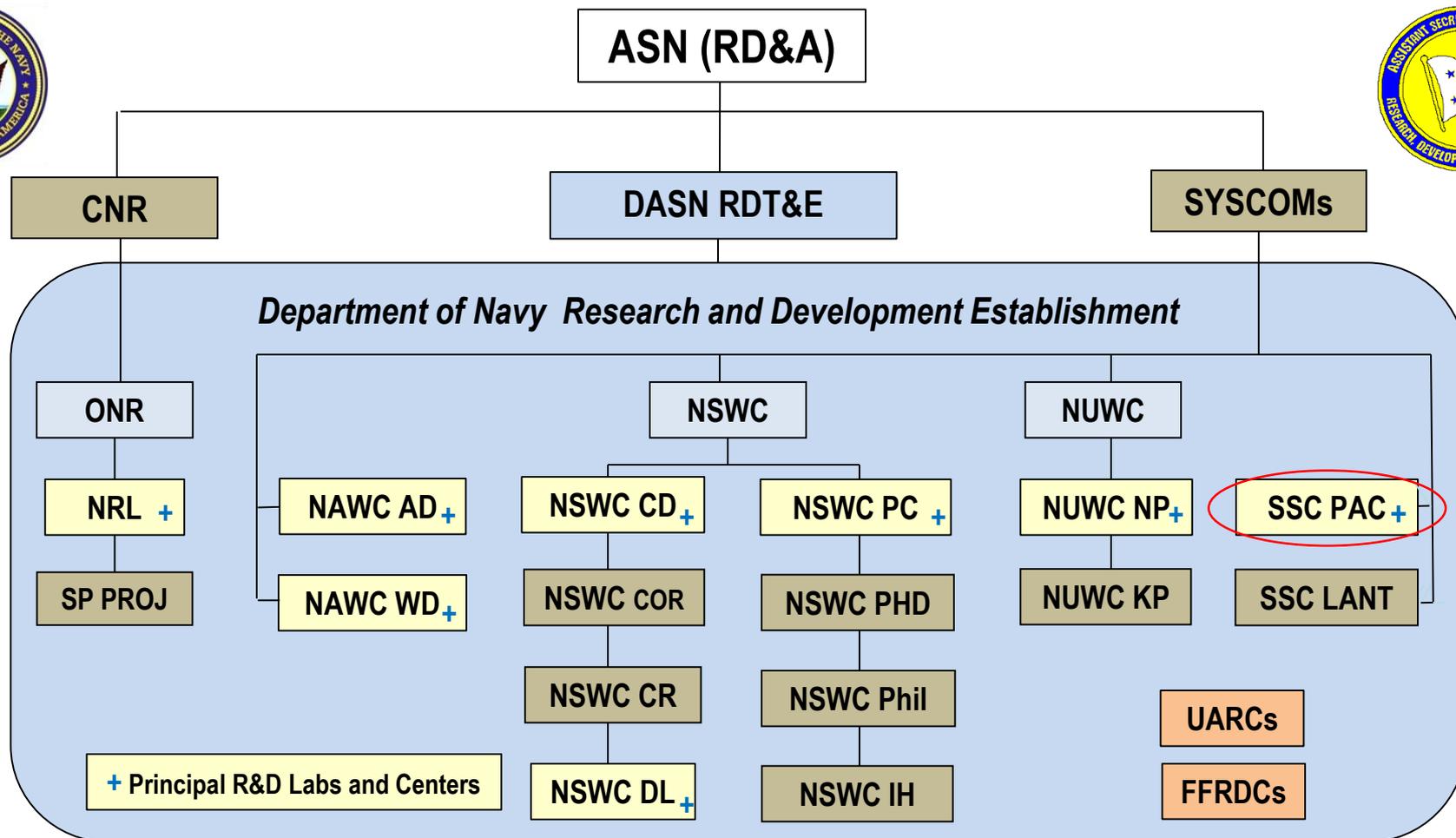
Underwater Acoustics



Polaris



Naval Research & Development Establishment



+ Principal R&D Labs and Centers



SPAWAR Organization

PEO C4I
RDML Carl Chebi



COMMANDER
RADM C.D. Becker
Executive Director
Pat Sullivan

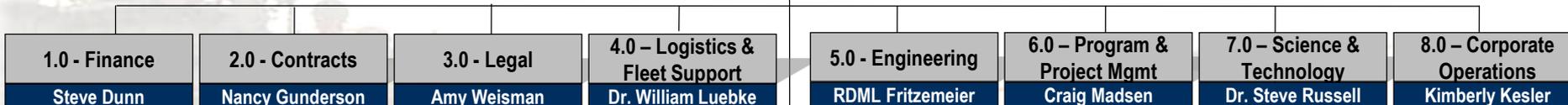
PEO FIS
PEO EIS
Ruth Youngs-Lew



PEO Space Systems
RDML Carl Chebi



Fleet Readiness Directorate
RDML Ed Anderson



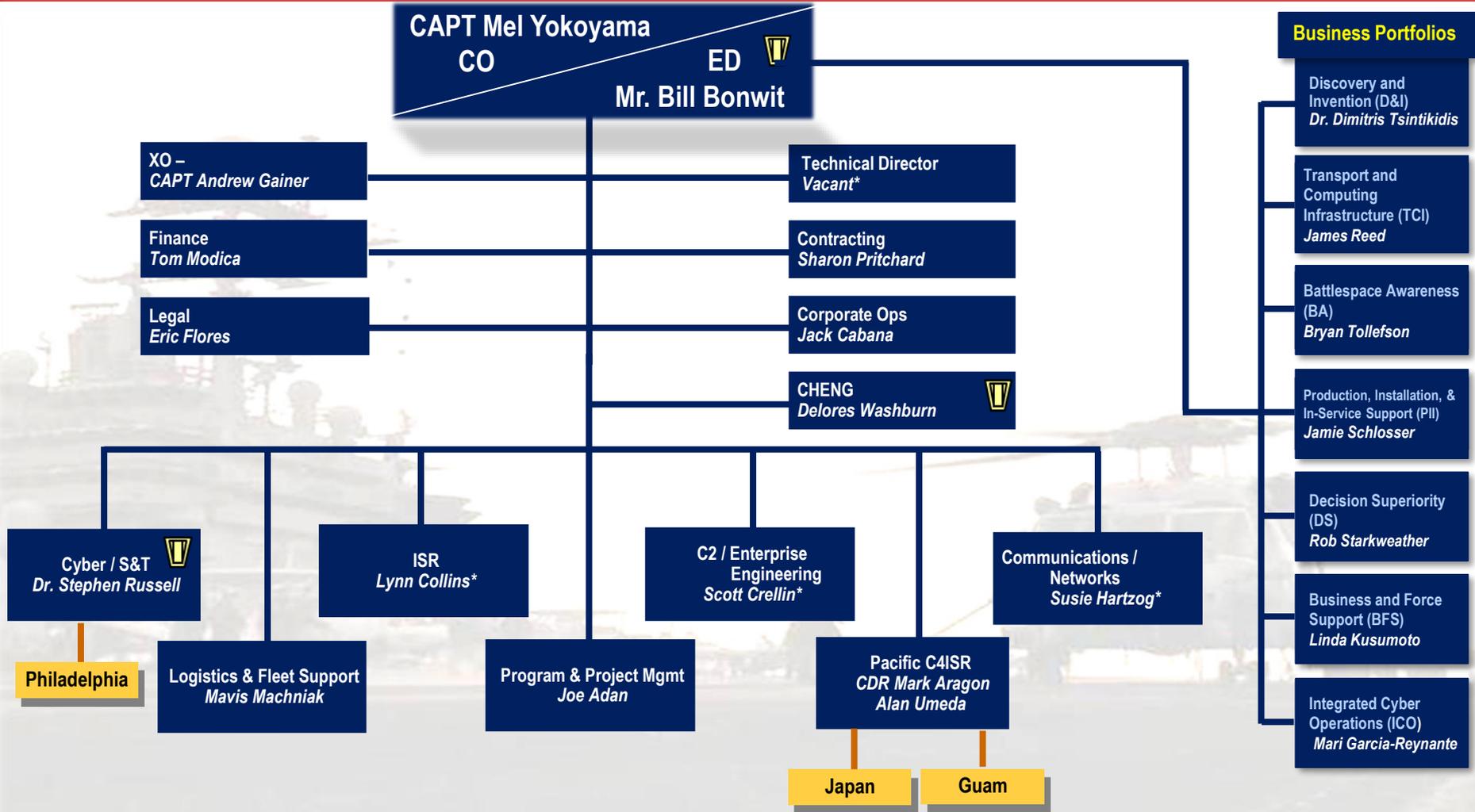
Echelon III Activities

SPAWAR Space Field Activity
CAPT Robert Berner, CO
John Pope, ED (Acting)

SPAWAR Systems Center Pacific (Working Capital Fund)
CAPT Mel Yokoyama USN, CO
Bill Bonwit, ED

SPAWAR Systems Center Atlantic (Working Capital Fund)
CAPT Scott Heller, CO
Chris Miller, ED

SSC Pacific: Organization



* SSTM: Senior Scientific and Technical Manager

FY17 Profile

Our People Are Our Greatest Strength

FY17 Profile

CIVILIANS* 4756

Scientists & Engineers 2350

Tech Specialists 965

S&E Technicians 291

Admin/Professionals 965

General Support 189

SES/ ST/ SSTM/ SL 21

MILITARY 197

Enlisted 135

Officers 62

TOTAL 4,953

*Civilians include NWCF and General Fund

FY17 = \$2.6B

Total Obligation Authority

New Professional (NP) Program:

- ✓ ~2850 applicants for 77 positions
- ✓ Average GPA 3.41

Highly credentialed, educated workforce

- ✓ 194 PhDs
- ✓ 1,356 Masters

3,648 SCI Clearances

- ✓ 1,955 Civil Servants & Military
- ✓ 1,693 Contractors



~ 32% of workforce: Active Duty, Reservists, 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



Networks



3D Printing/ AM



Cyber Security

Tomorrow
The Navy in Construction

Engineering, Development,
Test and Evaluation



C4ISR for Unmanned Vehicles



Collaborative
Software Armory



Integrated Fires



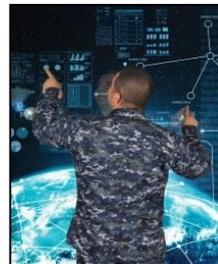
Mixed Reality



Integrated Cyber
Operations



Space Command &
Control



User Center Design

Future
The Navy in Planning

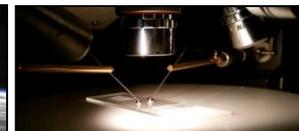
Science and Technology



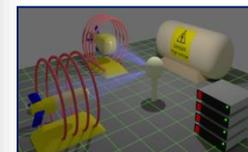
Cryogenic Exploitation of RF



Nano Satellites



Graphene



FDECO



Biologically-Inspired
Autonomous Sensing



Human Machine
Teaming



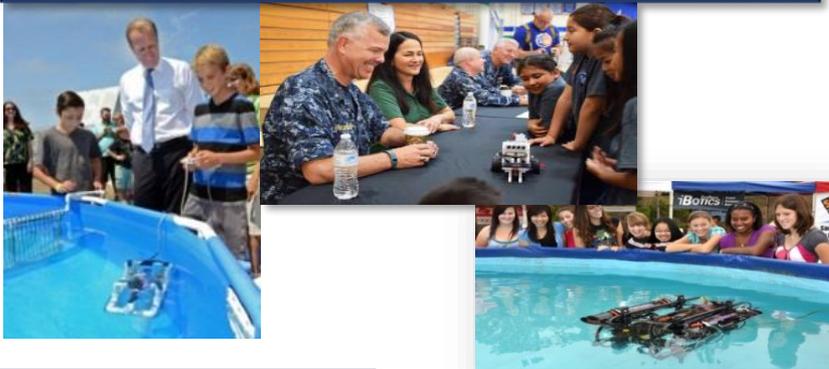
Advanced Antenna
Research

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



Community Impact:

- ▼ 16,654 Students
- ▼ 100 Schools
- ▼ 1,072 Teachers
- ▼ 178 Events

Volunteer Data:

- ▼ 407 Volunteers
- ▼ 11,174 Total STEM hours
- ▼ 9,409 Volunteer hours

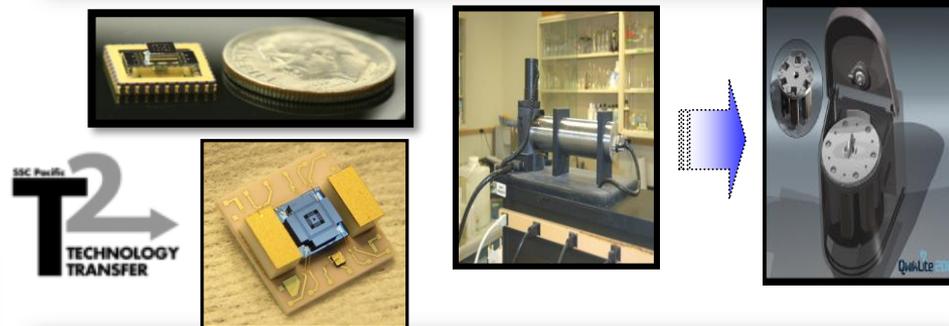
PATENTS	FY17
Disclosures	155
Patents Filed	100
Patents Issued	50

PUBLICATIONS	FY17
Journal Article	177
Conf. Papers	361
TRs/TDs	104

Technology Transfer



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



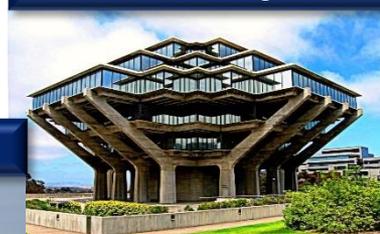
- ▼ Three San Diego based start-up companies formed as a result of licensing SSC Pacific technologies

San Diego State University



Geographer - Self-photographed, CC BY 1.0

UC San Diego



Carnegie Mellon



Moving Forward

- ▼ Strong demand for Cyber and C4ISR
- ▼ Increasing demand for Systems of Systems engineering, rapid prototyping and experimentation
- ▼ Increase speed to capability and affordability
- ▼ Reduce complexity, streamline processes, and adopt best practices
- ▼ Human-machine teaming; Autonomy/
Machine Learning; ISR; Networks
- ▼ Innovate, Integrate, Interoperate



SPAWAR

®



***Systems Center
PACIFIC***