Naval Information Warfare Center Pacific

Command Overview

Presented by:
Mr. Paul R. Shigley
NIWC Pacific
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.
NIWC PAC Support in the Pacific Region

Strategic Location

Only DoD Lab Located in a Major Fleet Concentration Area
NIWC PAC: A Legacy of Discovery for Over 75 Years

Arctic Submarine Operations

Radar / EW

Laser Research

ARPANET

Personalized Assistant that Learns (PAL)

NTDS

Underwater Acoustics

Polaris

Ship-launched Torpedoes

SHF SATCOM
# FY18 Profile

## Our People Are Our Greatest Strength

### FY18 Profile

<table>
<thead>
<tr>
<th>CIVILIANS*</th>
<th>4,792</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientists &amp; Engineers</td>
<td>2,353</td>
</tr>
<tr>
<td>Tech Specialists</td>
<td>921</td>
</tr>
<tr>
<td>S&amp;E Technicians</td>
<td>330</td>
</tr>
<tr>
<td>Admin/Professionals</td>
<td>968</td>
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<tr>
<td>General Support</td>
<td>194</td>
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<tr>
<td>SES/ ST/ SSTM/ SL</td>
<td>26</td>
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</table>

<table>
<thead>
<tr>
<th>MILITARY</th>
<th>198</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enlisted</td>
<td>134</td>
</tr>
<tr>
<td>Officers</td>
<td>64</td>
</tr>
</tbody>
</table>

**TOTAL** 4,990

*Civilians include NWCF and General Fund

### New Professional (NP) Program:

- ~2,765 applicants for 71 positions
- Average GPA 3.49

### Highly credentialed, educated workforce

- 204 PhDs
- 1,385 Masters

### 3,648 SCI Clearances

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

~ 32% of workforce: Active Duty, Reservists, Veterans

~ 535 Civilians & Military Directly Supporting C4ISR with the Fleet Around the World

**FY18 = $2.8B Total Obligation Authority**
Capabilities – Across the Full Life Cycle

**Today**
The Navy in Operation

- Installation and Support
  - Production, Installation
  - In-Service Support
- Marine Mammals
- Networks
- EXMAN/Additive Manufacturing
- CAMEO

**Tomorrow**
The Navy in Construction

- Engineering, Development, Test and Evaluation
  - C4ISR for Unmanned Vehicles
  - Collaborative Software Armory
  - Compile to Combat in 24 Hours
  - Integrated Cyber Operations
  - Space Command & Control
- Live Virtual Constructive
- HALO-Net
- EW/IW ANTX

**Future**
The Navy in Planning

- Science and Technology
  - OFFensive Swarm Enabled Tactics (OFFSET)
  - Graphene
  - Solid State Laser Atmospherics
  - Quantum
  - Artificial Intelligence/Machine Learning
  - Networks
  - Quantum

CMD Overview
Intellectual Capital and Partnerships – Industry and Academia

**CRADA - Cooperative Research and Development Agreement**

- Establish and foster R&D partnerships with industry and academia, allowing parties to share R&D resources, personnel, equipment and costs, enabling development of new capability, technology, IP

**Technology Transfer**

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

**Partnering in Education and Community Outreach**

**Community Impact:**
- 12,444 Students
- 150 Schools
- 766 Teachers
- 72 Events

**Volunteer Data:**
- 552 Volunteers
- 15,585 Total STEM hours
- 8,766 Volunteer hours

**PATENTS**

- Disclosures: 105
- Patents Filed: 100
- Patents Issued: 52

**PUBLICATIONS**

- Journal Article: 151
- Conf. Papers: 335
- TRs/TDs: 98

**San Diego State University**

**UC San Diego**

**Carnegie Mellon**

- Eight Southern California companies are using NIWC Pacific technologies.
Moving Forward

▼ Increased Focus on Information Warfare

▼ Strong demand for Cyber and C4ISR

▼ Increasing demand for enterprise engineering, rapid prototyping and experimentation

▼ Increase automation in fielding systems

▼ System “Toughness”

▼ Artificial Intelligence; Autonomy/ Machine Learning; ISR; Networks