Naval Information Warfare Center PACIFIC

Naval Information Warfare Center Pacific

Command Overview

Presented by:
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NIWC Pacific

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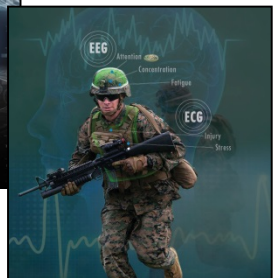
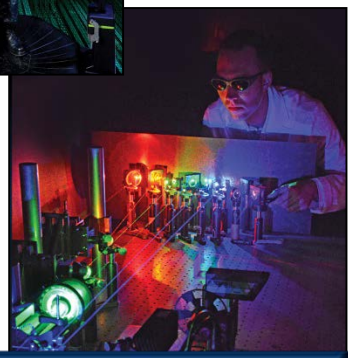
NIWC PAC MISSION

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.

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NIWC PAC Support in the Pacific Region

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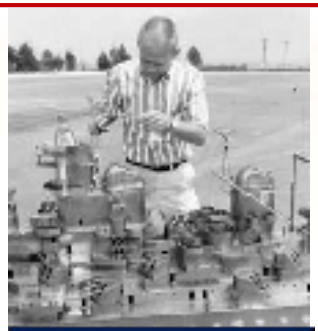
NIWC PAC: A Legacy of Discovery for Over 75 Years

Arctic Submarine Operations



Radar / EW

Laser Research

ARPANET

Personalized Assistant that Learns (PAL)

NTDS

Underwater Acoustics

Polaris

Ship-launched Torpedoes

SHF SATCOM

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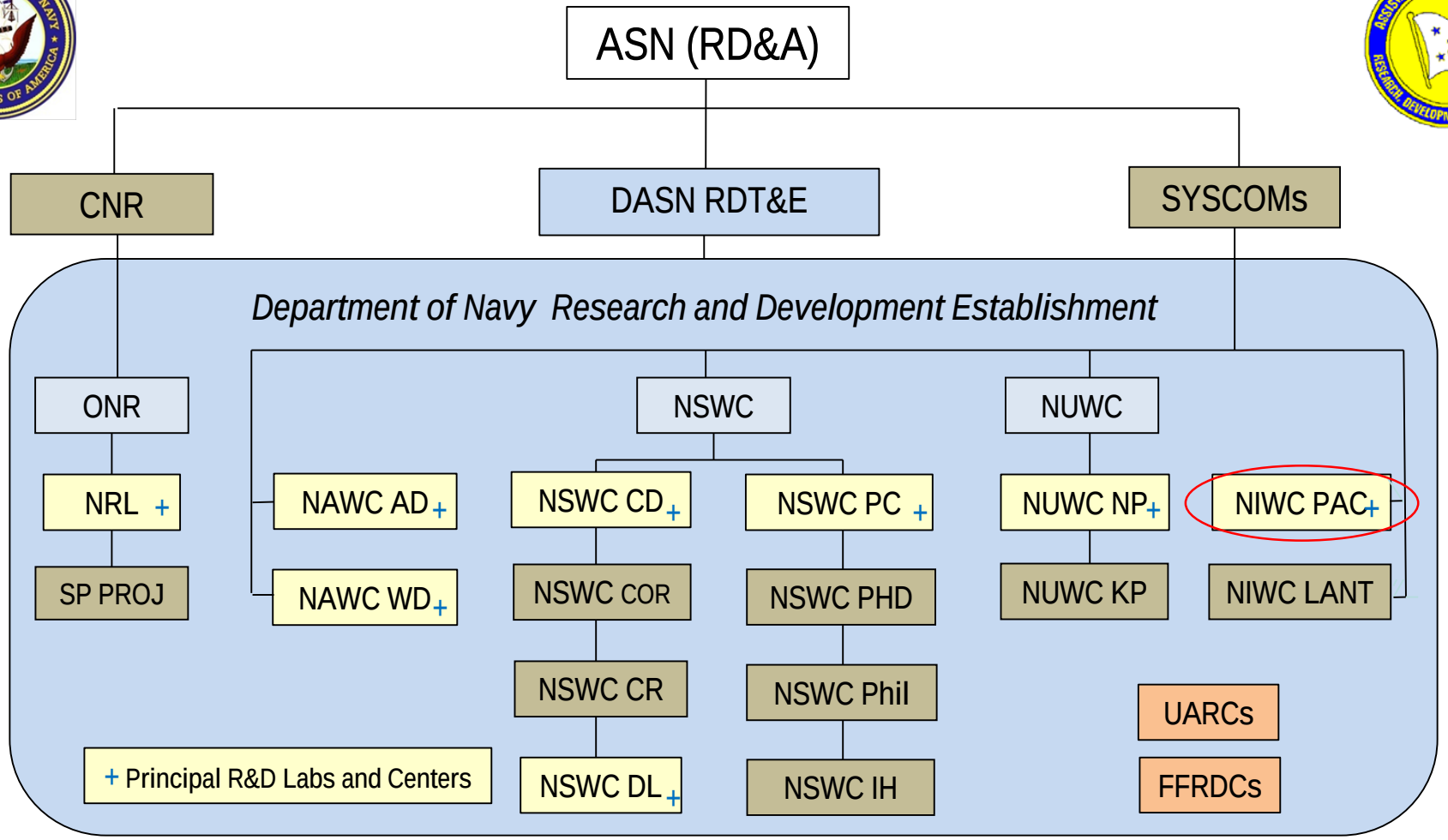
DISCOVER DEVELOP NR&DE NAVAL RESEARCH AND DEVELOPMENT ESTABLISHMENT TRANSITION

Naval Research & Development Establishment



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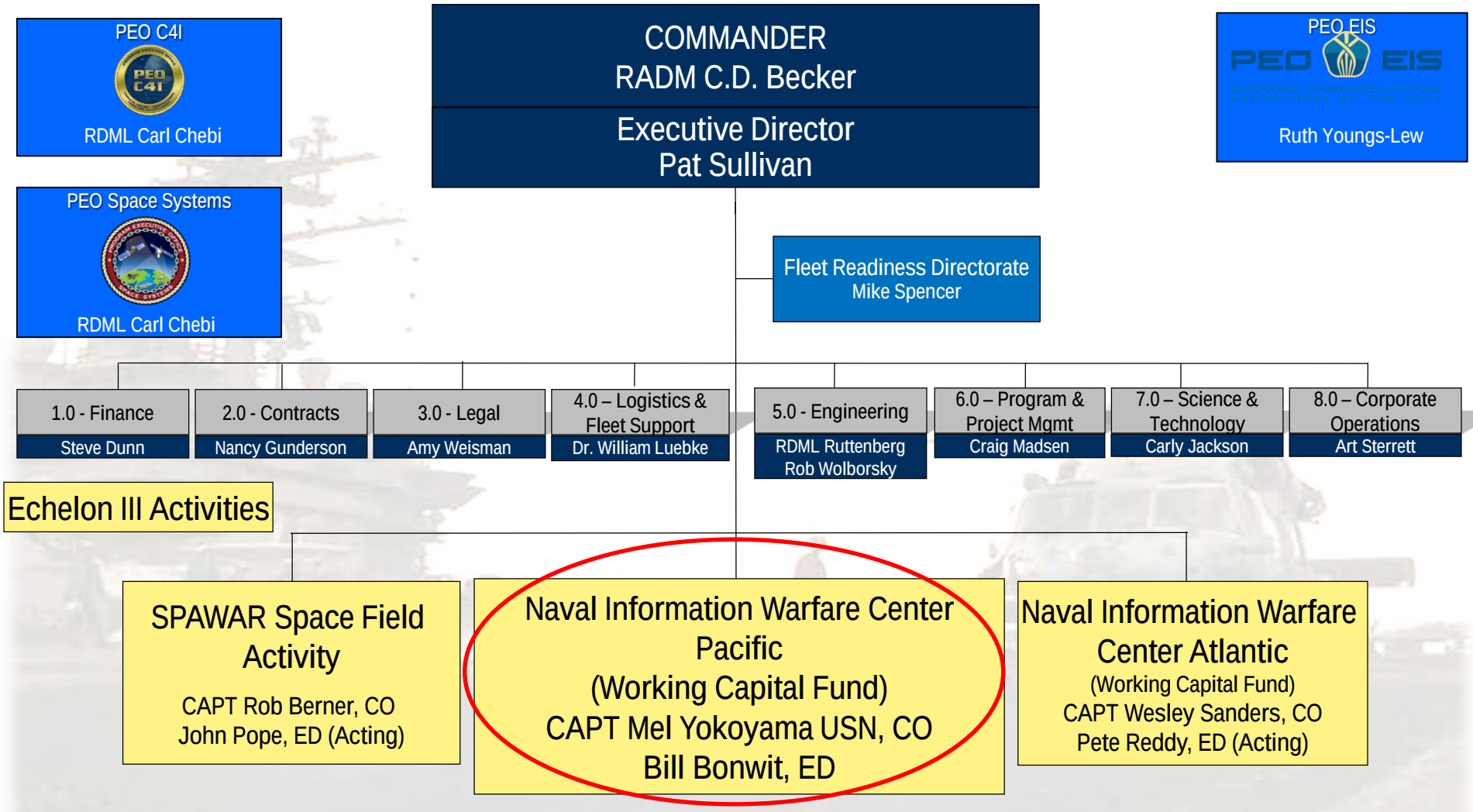
NAVWARSYSCOM Organization



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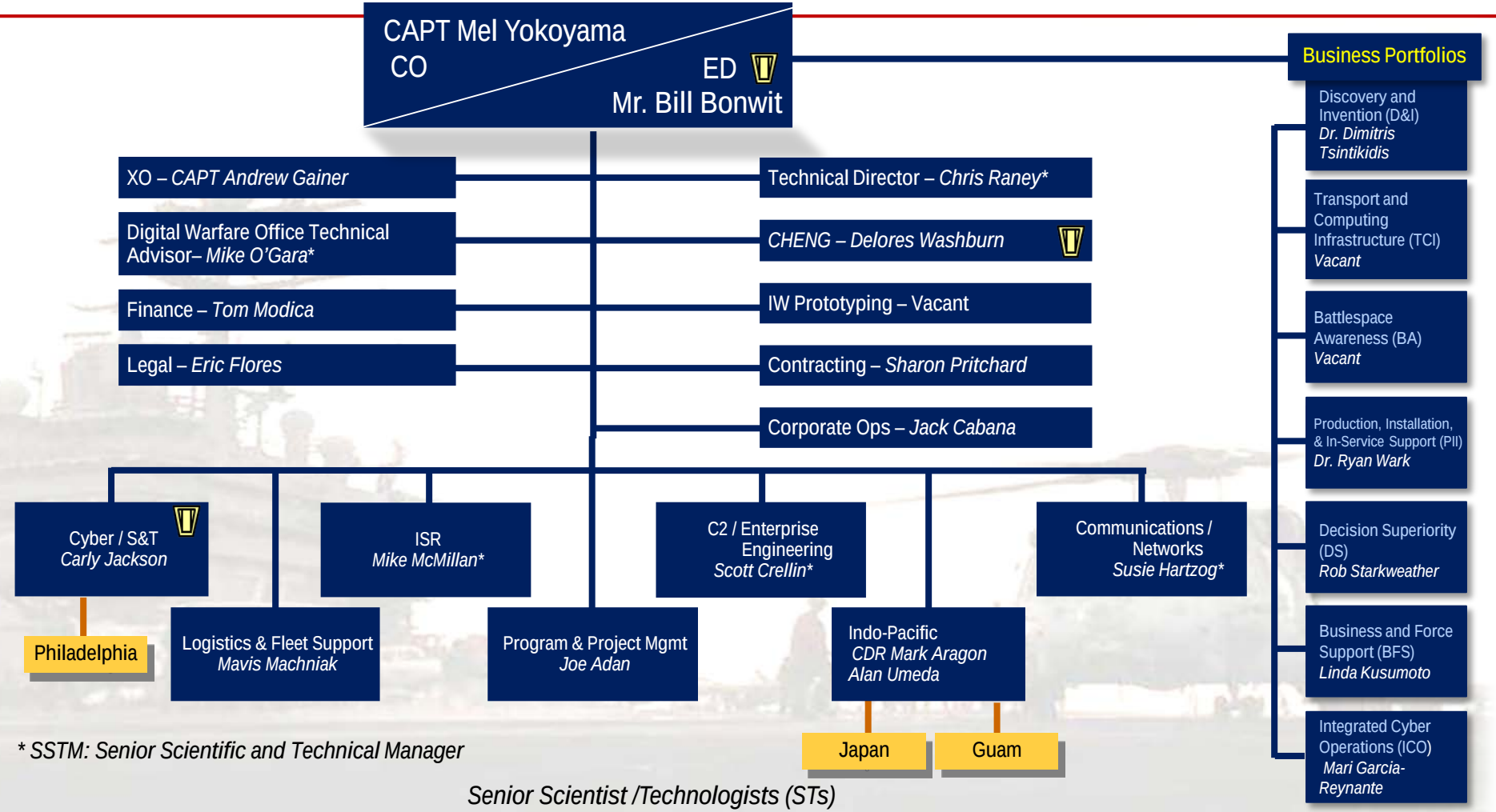
NIWC Pacific: Organization



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FY18 Profile

Our People Are Our Greatest Strength

FY18 Profile

CIVILIANS*	**4,792**
Scientists & Engineers	2,353
Tech Specialists	921
S&E Technicians	330
Admin/Professionals	968
General Support	194
SES/ ST/ SSTM/ SL	26
MILITARY	**198**
Enlisted	134
Officers	64
TOTAL	**4,990**

*Civilians include NWCF and General Fund

FY18 = $2.8B
Total Obligation Authority

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

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Capabilities – Across the Full Life Cycle

Today — The Navy in Operation
Tomorrow — The Navy in Construction
Future — The Navy in Planning

Installation and Support | **Engineering, Development, Test and Evaluation** | **Science and Technology**

Production, Installation In-Service Support

Marine Mammals

Networks

EXMAN/Additive Manufacturing

CAMEO

C4ISR for Unmanned Vehicles

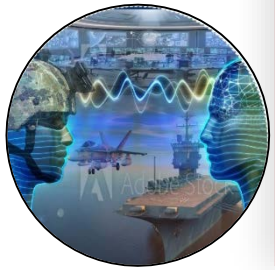
Collaborative Software Armory

Compile to Combat in 24 Hours

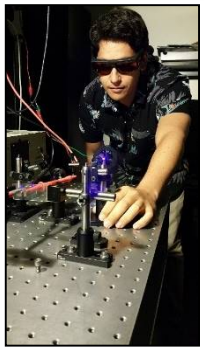
Live Virtual Constructive

Integrated Cyber Operations

Space Command & Control

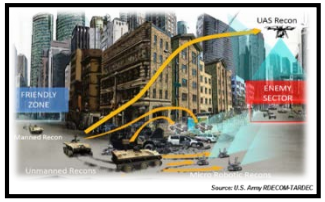


EW/IW ANTX

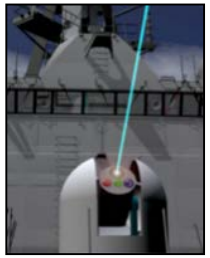


Graphene

HALO-Net

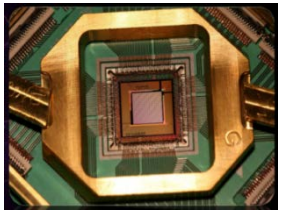


OFFensive Swarm Enabled Tactics (OFFSET)



Solid State Laser Atmospherics

Artificial Intelligence/ Machine Learning



Quantum

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Intellectual Capital and Partnerships – Industry and Academia

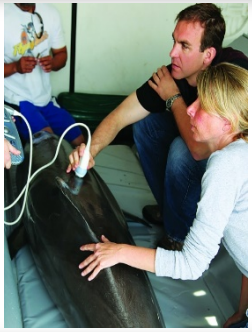
CRADA - Cooperative Research and Development Agreement

▼ 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

SBIR/STTR
SMALL BUSINESS INNOVATION RESEARCH
SMALL BUSINESS TECHNOLOGY TRANSFER

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



T2 TECHNOLOGY TRANSFER

▼ *Eight Southern California companies* are using NIWC Pacific technologies.

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	FY18
Disclosures	105
Patents Filed	100
Patents Issued	52

PUBLICATIONS	FY18
Journal Article	151
Conf. Papers	335
TRs/TDs	98

San Diego State University

Geographer - Self-photographed, CC BY 1.0

UC San Diego

Carnegie Mellon

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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

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