



# **Program Executive Office Integrated Warfare Systems (PEO IWS)**

## **Cybersecurity Industry Day**

**October 30, 2015**

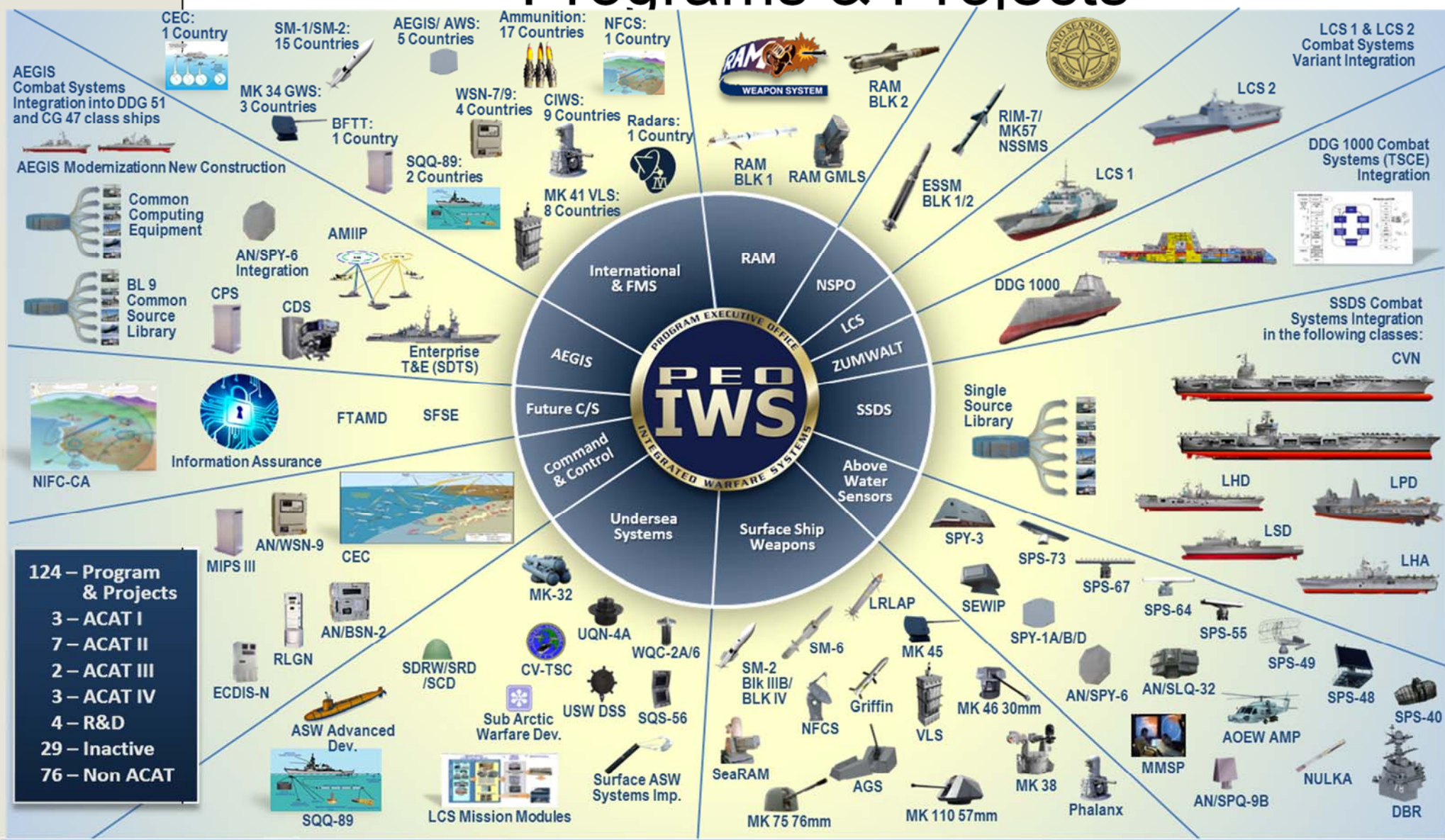
# PEO IWS Mission





# PEO IWS Overview

## Programs & Projects



**Mission:** To develop, deliver, and sustain operationally dominant combat systems to Sailors and Marines: "Sea Power to the Hands of our Sailors"



**★ PROGRAM EXECUTIVE OFFICER**  
**EXECUTIVE DIRECTOR**

**Director,  
Above Water Sensors,  
IWS C**  
**Acquisition Officer  
IWS ACQ**  
**Director, Corporate Operations  
IWS DCO**

**Technical Authority  
SEA 05  
IWS TA**

**Director,  
Integrated Combat Systems  
IWS D**  
**Chief Architect  
IWS D1**  
**Chief Logistician  
IWS D3**  
**Chief Financial Officer  
IWS CFO**

**Executive Operations Officer**

**Operations Director**

**Scheduling (ED)**

**Above Water Sensors  
IWS 2.0**

**Undersea Systems  
IWS 5.0**

**Surface Ship Weapons  
IWS 3.0**

**RAM  
IWS 3B**

**NSPO  
IWS 3D**

**Command & Control  
IWS 6.0**

**Future Combat Systems  
IWS 7.0**

**AEGIS Fleet Readiness  
IWS 1.0F**

**SSDS Fleet Readiness  
IWS 10.0F**

**AEGIS  
IWS 1.0**

**International & FMS  
IWS 4.0**

**Frigate/LCS  
IWS 8.0**

**ZUMWALT  
IWS 9.0**

**Ship Self Defense System (SSDS)  
IWS 10.0**

**SCSC Wallops Island**

**AEGIS TECHREP**

**Element  
Major Program Managers**

**Fleet Readiness  
Major Program Managers**

**Combat Systems  
Major Program Managers**

**Major Engineering  
Development and Test  
Commands**

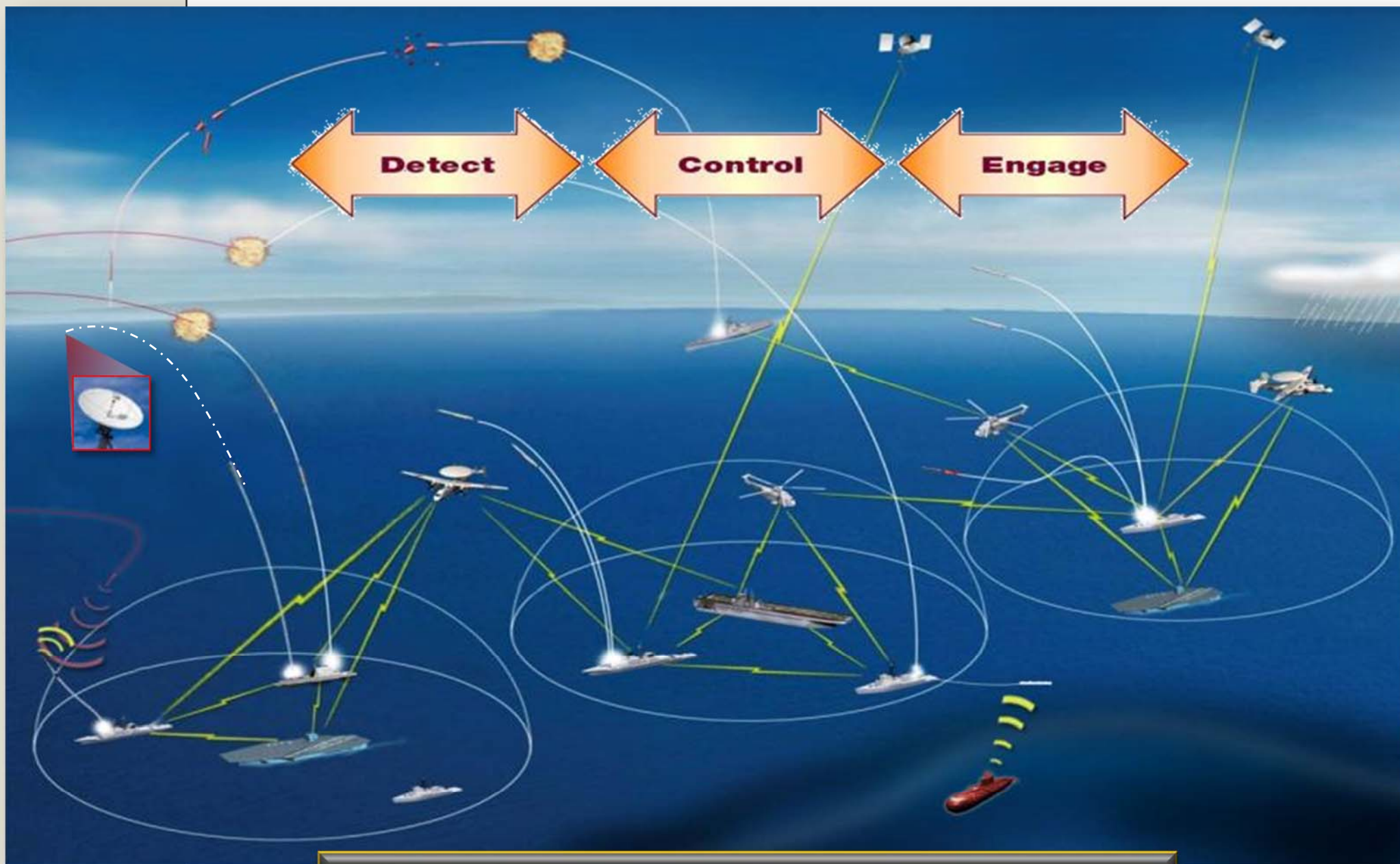
*“Sea Power to the Hands of our Sailors”*

# Small Business In PEO IWS

- Continuing leadership focus
- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are Navy leaders
- PEO Small Business Successes
  - 5.0/6.0: Technology Development via SBIRs and BAAs.
  - 2.0: Systems Engineering and Integration
  - 2.0/6.0/7.0: System Production
    - Nulka MK 53
    - CEC SDP-S
    - BFTT T46
  - PEO Enterprise: PSS/CSS
- Successful search for new opportunities
  - Consolidated Omnibus Financial Management Services



# Fleet Operations



***Seamless Combat Systems Integration***

# Challenges

- Lifecycle of combat systems surpasses conventional IT systems (by potentially decades)
- Combat systems functions are largely time-critical and deterministic
  - Mission areas, such as Ballistic Missile Defense and Anti Air Warfare, have stringent requirements for system behavior and sequencing of data exchanges
  - Fire Control Loop requires sub-second response times
- Controlling operator access while maintaining system availability
- Cybersecurity solutions must account for limited manning and security administration expertise
- Heterogeneous computing environment
  - Various operating systems (conventional and real-time) and connection types (IP, MILSPEC, analog, etc.)
- Utilizing more Commercial-Off-The-Shelf (COTS) products
  - Supply chain, emerging vulnerabilities, lifecycle support

# Priorities

- Integrate cybersecurity into the system engineering process
  - Design cybersecurity as an intrinsic element of the system vice “bolt-on” solutions
  - Incorporate processes for cyber threat-based analysis/recommendations/decisions
- Common solutions that multiple combat systems can leverage (i.e. built once, used by many)
- Develop scalable/modular cybersecurity framework using advanced technologies from different organizations



# Looking Ahead

- Asset Management
- Anomaly-based Host Intrusion Detection/Prevention
- Application Whitelisting
- Access Control and Identity Management
  - Biometrics
- Network Defense
- Cyber Resiliency Strategies
- Cyber Situational Awareness
  - Security Incident and Event Management
  - Data analytics
  - Operator-friendly visualization
- Software assurance techniques and testing
- ....and others

# PEO IWS Cybersecurity Entry Points

- PEO IWS Cybersecurity Executive POC - (202) 781-1953
- PEO IWS Cybersecurity Lead - (202) 781-2245
- Combat System Cybersecurity Architect - (540) 653-6334
- AEGIS Cybersecurity Lead - (202) 781-5326
- SSDS Integrated Combat System Cybersecurity Lead - (540) 653-1692