Boston NDIA Small Business Innovation Summit

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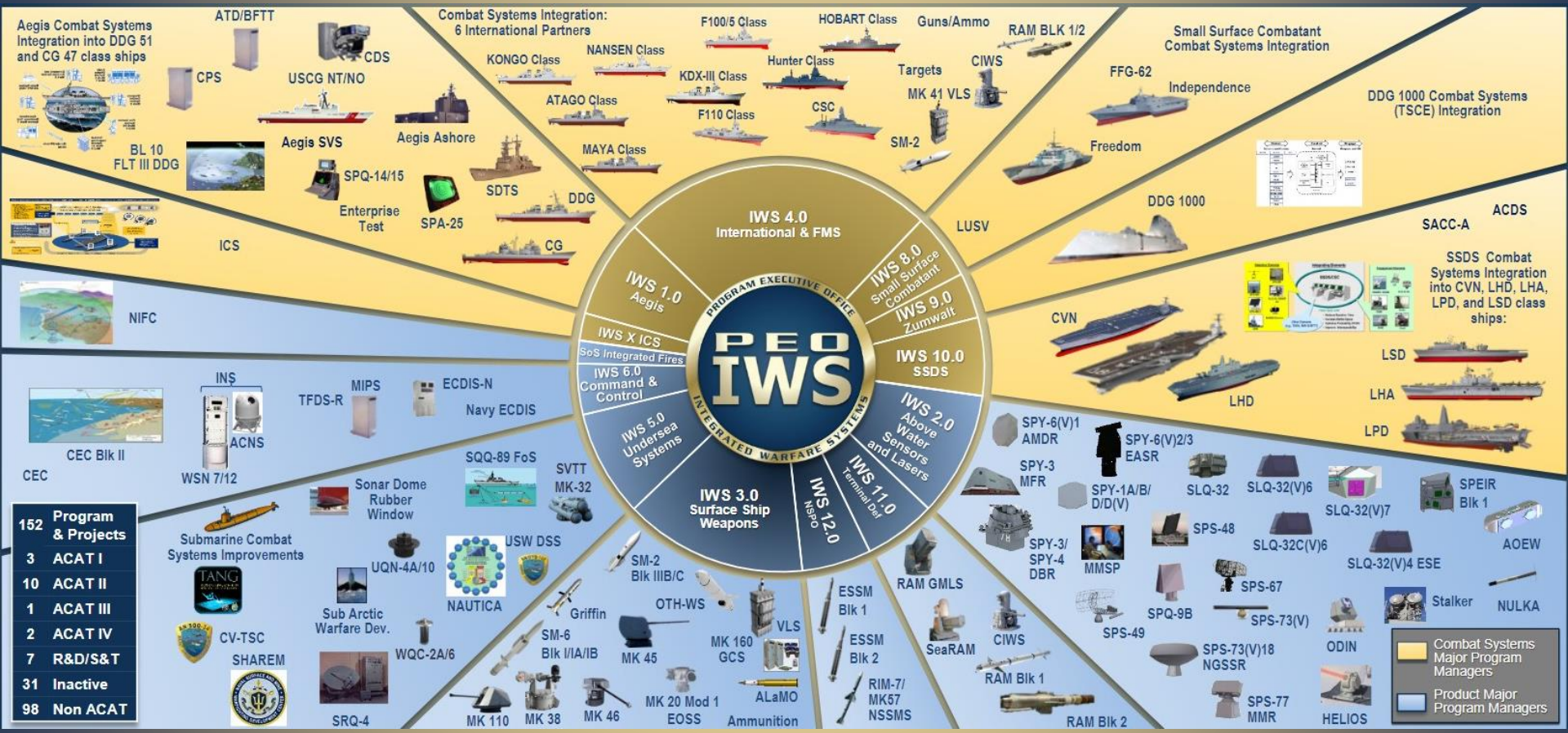
PEO IWS Programs and Projects



PEO IWS S&T IPT

- IWS 1 AEGIS
- IWS 2: Above Water Sensors
- IWS 3: Surface Ship Weapons
- IWS 4: Int'l and Foreign Military Sales
- IWS 5: Undersea System
- IWS 6: Command and Control
- IWS 80: Small Surface Combatant / SSDS
- IWS 9: Zumwalt Integrated Combat Systems
- IWS 11: Terminal Defense System
- IWS 12: NATO Sea Sparrow Program Office
- IWS X: Integrated Combat Systems Program Office

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 1.0 AEGIS

Optimization of Automated Test Capabilities for Reduced V&V	Advanced Display for Planning and Tactical Ops	Enhanced Operational Readiness of Combat Systems	Enterprise Cybersecurity
Enterprise Lifecycle Management	Modularity for Combat Systems	Kill Chain Optimization	Distributed Common Operational Picture (DCOP)

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 2.0 Radar, EW

RF Power and Bandwidth	Waveform Design and Signal Processing	EO/IR Sensors
Phased Array and IF	Sensor Netting and Control	Supporting and Sustaining Technologies

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 3.0 Weapons

MISSILES TECHNOLOGY			
Warhead Battery Telemetry	Airframe and Radome	Seeker / Guidance and Control	Rocket Motors Propellants

GUN WEAPON SYSTEMS TECHNOLOGY			
Electronics, Control and Cybersecurity	Magazine Loading and Handling Systems	Structures and Barrel	Gun Systems

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 3.0 Weapons

LAUNCHER SYSTEM TECHNOLOGY FOCUS AREAS		
Electronics, Control, and Cybersecurity	Loading and Handling (VLS)	Structure and Canister (VLS)

GUN MUNITIONS TECHNOLOGY FOCUS AREAS			
Airframe and Radome	Seeker Guidance and Control	Warhead Battery Telemetry	Rocket Motors and Propellants

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 5.0 USW

Group & Theater USW Situational Awareness	USW C2, Battle Management, and Comms	Signal Processing and Display	Sensors	Affordable Production	Training

IWS 6.0 CEC

Unified, Multi-Domain Tracking and ID	Antenna and Comms Enhancements	Long Range ISR&T and Integrated Fires
"Fighting Quiet"	Sensor Netting on Diverse Platforms	

IWS 6.0 PNT

New Navigation Methods	Sensor Upgrades	Charting and Situational Awareness	Cyber
Modeling and Simulation	Fusion	INS Improvements	Time

2022 PEO IWS S&T Master Plan Technology Focus Areas

IWS 80 ICS

Cyber/IA	Detect/Track	Identify
Distributed Multi-platform Capability	Engage	Assess

IWS 80 SSDS

Cyber/IA	Radar Signal Analysis Improvements	Detection/Track
Radar Signal Analysis Improvements		

2022 PEO IWS S&T Master Plan
Technology Focus Areas

IWS X ICS

Foundational Capabilities	Resilient Comms & Networks	Mission Effectiveness Tools
Real-Time Sensors Coordination	Data Synthesis	Real-Time Effectors Coordination
UxV Asset Utilization	Training	Data Management
AL/ML Applications		

FY24.1 PEO IWS SBIR/STTR TOPICS

DoD Topic	MPM	Title	Objective
N241-026	2	Automatic Boresight Alignment of Optical Sensors	Develop a capability for automated in-situ boresight alignment of multi-spectral imaging sensors and lasers.
N241-041	2	High Power Optical Splitter for Laser Weapon Systems	Develop a capability that efficiently splits the power of a high energy laser beam into two outputs.
N241-027	2	Precision Stabilization of Large, Wide Field of View Sensors	Develop a capability to accurately stabilize high performance, large, wide field of view (WFOV) imaging sensors during operations in adverse maritime environments.
N241-024	3	Vertical Launching System High Speed Interface Processor	Develop a high-speed interface within the MK41 Vertical Launch System (VLS) architecture.

FY24.1 PEO IWS SBIR/STTR TOPICS

DoD Topic	MPM	Title	Objective
N241-030	5	Acoustic Training Data Prioritization	Develop a tool for assessing training data with artificial intelligence or machine learning (AI/ML) algorithms that provides desired data prioritization results from current or new data for effective, complete, and precise training.
N241-048	5	Virtualized Naval Tactical Data System Interfaces over Ethernet	Develop a capability for Ethernet-based Naval Tactical Data System (NTDS) interfaces to allow hardware abstraction of Interface Processor Computer Programs (IPCPs) to virtual machines.
N24A-T007	6	Integrated Environmental Model System for Platform Situational Awareness	Develop an Integrated Environmental Model System (INTEMS) that acquires, aggregates, and validates shore-based environmental predictions for naval platforms systems.
N241-044	6	Rapid Scalable Time Synchronizatio	Develop a rapid time sync capability for nodes that use single beam antennas in a Global Positioning System (GPS) denied environment.

FY24.1 PEO IWS SBIR/STTR TOPICS

DoD Topic	MPM	Title	Objective
N241-046	6	Micro Inertial Measurement Unit for Maritime Navigation	Develop a highly accurate 6-axis Inertial Measurement Unit (IMU) that is low-cost and lightweight for future U.S. Navy surface and subsurface platforms.
N241-051	6	Enhanced Radome Design	Develop a radome capability for providing greater filtering and aide in beam shaping.
N241-038	80	Runtime Software Verification for Non-Standard Compute Infrastructure	Develop an automated software runtime verification capability for combat management systems running on US Navy ship computer hardware that reveals errors or conditions.

FY24.1 PEO IWS SBIR/STTR TOPICS

DoD Topic	MPM	Title	Objective
N241-037	80	Weapons Scheduling for Uncertain Weapon-Target Assignment	Develop an automated capability that maximizes weapon scheduling effectiveness where explicit weapon-target assignment solutions are not possible, for the Ship Self-Defense System (SSDS).
N241-035	X	Coordinated Effectiveness Assessment	Provide an automated Tactical Effectiveness Service for Electromagnetic Effectors (TES-EE) within the decision support services of the Integrated Combat System which provides consistent and accurate real-time effectiveness assessment of electromagnet engagements for coordinated engagements among hardkill and softkill effectors across the force.

"Sea Power to the Hands of Our Sailors"