2015 Armament Systems Forum

State of Surface Ship Weapons

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Major Program Manager
Surface Ships Weapons
PEO IWS 3.0

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Our Mission

To develop, deliver, and sustain operationally dominant combat systems to Sailors

“Sea Power to the Hands of Our Sailors”
Program Executive Officer
Integrated Warfare Systems

- The PEO IWS organization is aligned to develop, procure and deliver Enterprise Warfighting Solutions for Surface Ships
- PEO IWS has life cycle responsibilities for combat system performance, design management, systems engineering, installation, integration, test, maintenance and disposal

INNOVATION
- APLs
- Industry
- NSWC
- NUWC
- ONR
- SBIR/SST
- DARPA
- Aegis BMD

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DEVELOPMENT
- 238 USN Ships
- 78 USCG Ships
- 29 Nations
- PEO IWS executes $5B - $6B annually

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Develop, Deliver, and Sustain Operationally Dominant Combat Systems
Surface Ship Weapons - Focus Areas

• Portfolio Accomplishments
  – Technology Insertion
  – Rapid Deployment
  – Acquisition Approach
  – Affordability

• Future Trends
• **SM-2 Family**
  – Sustainment of USN and Allies SM-2 Inventory into 2030’s and beyond

• **SM-6 Family**
  – Introduction of Active Missile Seeker Technology
  – Built In Test (BIT)
  – Portable AUR BIT Tester
Threat Driven Requirements Stress Need for Advanced Capability Dual Mode Seeker; Leverages existing active US seeker technology

Evolutionary upgrade to Block 1; improving capability against the most stressing ASCM threats in challenging environments

Essential ESSM Block 2

- Allows Functional Compatibility Integration as a Block 1, and Optimization to Maximize Capability
- Entering Development Phase
- IOC 2020

ESSM Block 2 development is funded by the Participating Nations of the NATO Seasparrow Consortium

- 60% International / 40% US
RAM and Griffin

• Rolling Airframe Missile (RAM)
  – Block 2 missile provides significant kinematic & detection capability improvements
  – Block 2 ready for Fleet delivery- IOC planned for April 2015 on USS ARLINGTON (LPD 24)
  – Excluding MSST, RAM Block 2 has tested against all threat targets with unprecedented success - 27 for 28 Successful DT/OT Firings

• PC Griffin Missile System
  – Rapid Deployment Capability
  – Met Operational Requirements
  – Achieved Initial Operating Capability
CIWS/SeaRAM/LPWS

• Sustained Capability
  – Pace the Threat
  – Total Ownership Cost Focus
  – Commonality
  – RM&A Roadmap

• Rapid Capability Deployment
  – Land Based Phalanx System
  – SeaRAM to Rota DDGs
Vertical Launching System

- In production 20+ years
- SM-2, SM-3, SM-6, and ESSM, Tomahawk, VLA
- Platforms
  - Aegis Cruisers
  - Aegis Destroyers
Naval Gunnery Weapon Systems

- **Advanced Gun System and Long Range Attack Projectile for DDG-1000**

- **Improve MK34 5” GWS to Support upgrades for AEGIS Modernization and DDG-51 New Construction**

- **Enhance MK 38 25mm Gun System to Counter Fast In-Shore Craft (FIAC)**

- **Improve Conventional Ammunition Fuzes to Effectively Support SUW/AAW Missions**

- **Cooperative with ONR to Develop Guided Munition Technologies**
Looking Forward

• Mission Growth
  – Expanding offensive capability of existing weapons

• Affordability
  – Judicious use of resources

• Technology Leaps
  – Electromagnetic Railgun
  – Lasers

On Target – Delivering Affordable and Effective Firepower