Fianancing Integrated Air and Missile Defense

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Overview

• Fiscal landscape

• Lines of effort
  – Operating and sustaining the Fleet
  – Modernizing the Fleet
  – Recapitalizing the Fleet

• Summary
Budgetary Outlook: Navy Priorities

• Build and maintain a rotational and forward-deployed global force

• Deliver core capabilities for deterrence, power projection, and sea control for access to the global commons, to assure allies, and prevail in conflict

• Balance available resources among
  • Modernization
  • Force structure
  • Readiness
  • Forward presence
  • Manpower

• Develop procurement plans that are stable, affordable, realistic and transparent
Budgetary Outlook: Navy Challenges

- Anti-access and Area-denial
- Balancing procurement with sustained operational demand
- Fielding a “whole force” in an austere fiscal environment
- Combatant Commander Demand for Naval Forces
- Preserving fragile maritime industrial base
Financial Outlook

• “We plan to reduce the Defense budget by $400B over the next 12 years.”

• “The Navy Budget for FY 12 is underestimated by $64B due to rising prices and decreased purchasing power.”
Combatant Commander Demand For Navy IAMD Capability / Capacity Is Increasing....without bound
Operations and Support: A macro view

- Defense Department O&S costs are:
  - $350B for FY12...63% of DoD total...rising to 71% by 2030
  - Comprised of compensation, medical care, fuel and spare parts, etc.
  - Sensitive to spiraling medical care costs, pay raises for military and government civilians, and rising costs of everything from office supplies to aircraft fuel

- Biggest driver...average cost to support each service member
  - 1980—$55K
  - 2001—$105K
  - 2010—$211K

O&S consuming an increasing share of a declining topline......adversely impacts both modernization and recapitalization
Integrated Air and Missile Defense: Operations and Sustainment

- Wholeness reviews require cash infusion to restore Fleet Readiness
- Fy12 O&MN increments due to increased OPTEMPO:
  - Steaming days: +$24B
  - Flying Hours: +$252M
  - Ship Maintenance: +$182M
  - AIMD: +$92M
- BMD O&S transitioning from MDA to Navy: $150M annually beginning in FY13
- O&MN account is further pressurized by fuel price volatility in execution year

O&S Bottom Line: Adverse trends in Fleet Readiness likely to continue due to real world operations
Integrated Air and Missile Defense: Modernization

- Aegis modernization is centerpiece of Surface IAMID program
- BMD ship Balanced Capability and Capacity plan is bridge to answer COCOM demand
- E-2D is game changer for Naval Aviation
- Three more years of F/A-18 buys required in APN

*Modernization Bottom Line: Urgently required to keep Fleet warfighting capability relevant in IAMID*
## Aegis Multi-Mission Surface Combatants

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<th>Warfighting Mission Area</th>
<th>22 Ships</th>
<th>CG Multi-Mission</th>
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**NIFC-CA/System Description**

- **Mission:** NIFC-CA provides an Engage-On-Remote and Over-The-Horizon air defense capability using a sensor network in support of the full kinematic range of active missiles against manned aircraft and cruise missiles, overland and at sea.

- **Employment:** NIFC-CA uses the full capability of CEC and Link-16 to engage threats at significantly greater ranges.
Integrated Air and Missile Defense: Recapitalization

- DDG re-start key to future large surface combatant strategy
- DDG Flight III essential to pacing emerging A2AD threat
- BMD is a growth industry...DDG 112 and up built from keel up with advanced capability
- JSF key to keep Navy Air competitive with the threat

Recapitalization Bottom Line: New technology landing pad to cope with burgeoning IAMD threat
Air and Missile Defense Radar

• Description
  – The Air and Missile Defense Radar (AMDR) suite is being designed to support maritime Integrated Air and Missile Defense (IAMD)
  – AMDR is envisioned as a radar suite scalable to accommodate mission requirements for multiple ships

• AMDR will consist of S-band (AMDR-S) and X-band (AMDR-X) radars and a Radar Suite Controller (RSC)
  – AMDR-S- volume search, tracking, Ballistic Missile Defense (BMD) discrimination, and missile communications
  – AMDR-X- horizon search, precision tracking, missile communication and terminal illumination
  – RSC- interface between AMDR-S, AMDR-X, and combat system, and resource coordination

• Program Status- proceeding to Milestone A
  – AMDR Concept Studies- Completed
    • Three fixed-price concept development contracts
    • Each contractor developed conceptual design and technology maturation plans
  – AMDR-X RFI
    • Currently evaluating responses
  – AMDR-S/RSC Technology Development
    • Award anticipated Q4 FY10 (up to 3 Fixed Price Incentive contracts)
    • Focused on demonstrating AMDR key Technologies are scalable and sufficiently mature
DDG Evolution

**Near Term**
- 14 ft AMDR with SPY-3
- Add Power
- Added Cooling
- Additional combat systems mods
- Energy Efficiency

**Technology Insertion**
- Additional Power
- Additional Cooling
- Combat Systems Mod
- Propulsion Derived Ship Service/ Hybrid Electric Drive

**Restart**
- ACB 12 Software
- TI 12 Computing Plant
- CIWS BLK 1B
- SQS-89A(V)15 w/ MFTA

**Timeline**
- FY09
- FY10
- FY11
- FY12
- FY13
- FY14
- FY15
- FY16
- FY17
- FY18
- FY19
- FY20
- FY21
- FY22
- FYXX
- FYYY
- FYZZ

**DDG 116-121**
- CONTRACT AWARD

**DDG 122-XXX**
- CONTRACT AWARD
IAMD Summary

- **Operate**, maintain, and retain the legacy IAMD Fleet and Fleet Air Arm

- **Modernize** the IAMD Fleet of Multi-mission Surface Combatants and Tactical aircraft to pace the threat

- **Recapitalize** to remain relevant to the Joint IAMD Fight at Sea, Ashore, and Over Land