

Ballistic Missile Defense Overview For The National Defense Industrial Association

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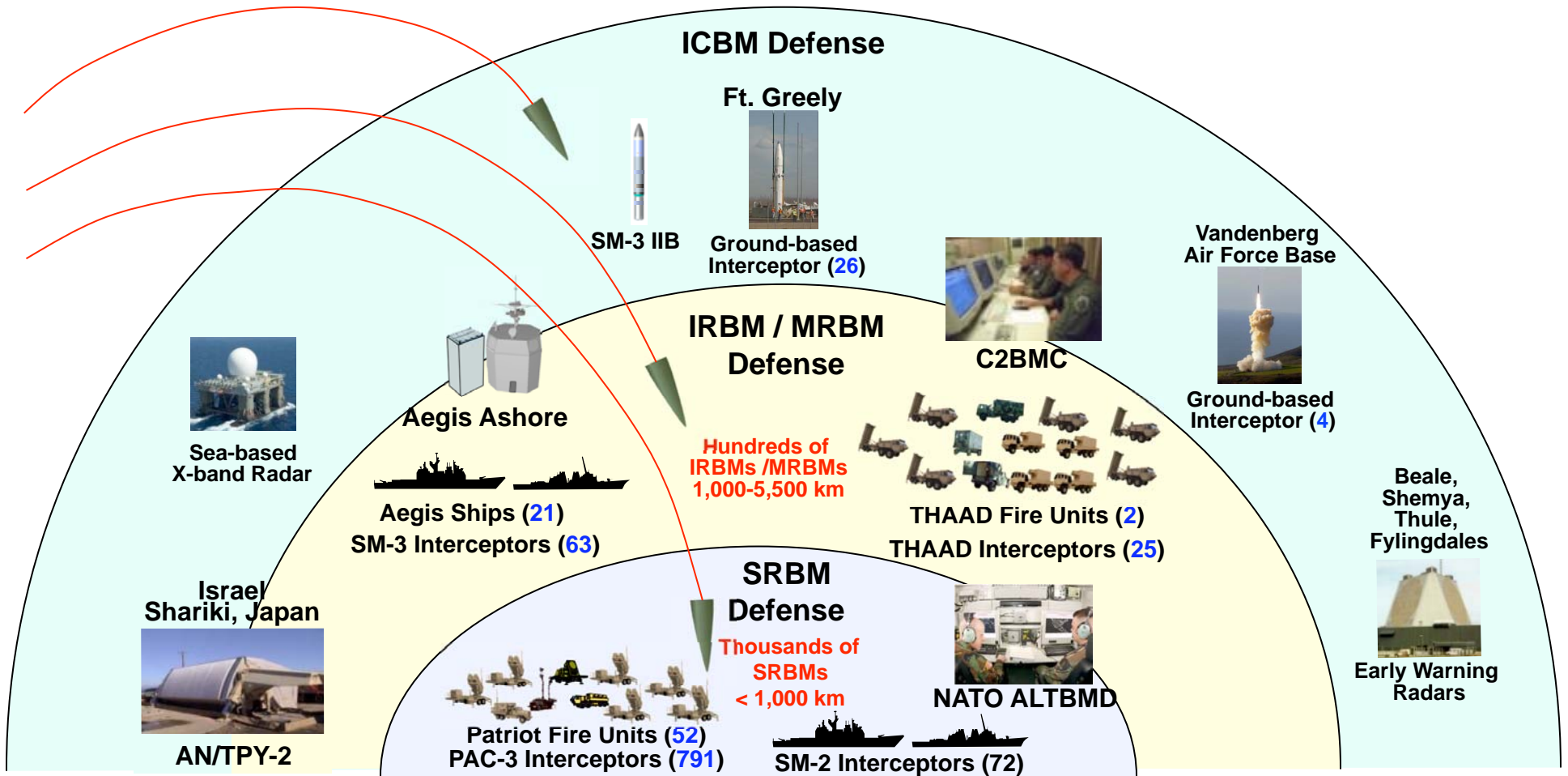
Ballistic Missile Defense Review Policy Priorities

– Guidance From The President, Published February 2010 –

- **Defend the homeland against limited ballistic missile attack**
- **Defend against regional missile threats**
- **Test new capabilities under realistic operational conditions**
- **New capabilities must be fiscally sustainable**
- **Missile defense must be flexible to adapt as threats change**
- **Expanded international efforts for missile defense**



Layered Ballistic Missile Defense



SRBM = Short Range Ballistic Missiles
 MRBM = Medium Range Ballistic Missiles
 IRBM = Intermediate Range Ballistic Missiles
 ICBM = Intercontinental Ballistic Missiles



Phased Adaptive Approach

Phase 1 (2011)

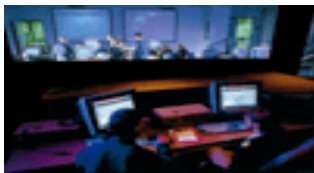
Deploy existing / maturing systems against SRBM/MRBM threat



Aegis BMD 3.6.1 with SM-3 IA



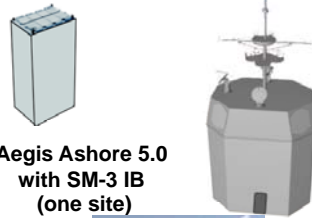
AN/TPY-2 (FBM)



C2BMC AOC
Ramstein

Phase 2 (2015)

Enhanced systems against SRBM/MRBM threat



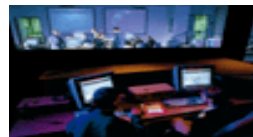
Aegis Ashore 5.0
with SM-3 IB
(one site)



Aegis BMD 4.0.1/5.0 with SM-3 IB



THAAD



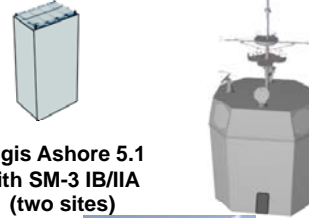
C2BMC Updates

ALTBMD Lower Tier

Enhanced
Sensors

Phase 3 (2018)

Improved area coverage against MRBM/IRBM threat



Aegis Ashore 5.1
with SM-3 IB/IIA
(two sites)



Aegis BMD 5.1 with SM-3 IIA



THAAD



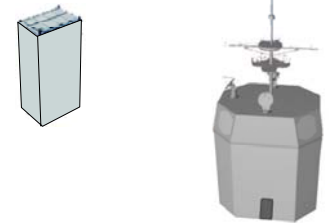
C2BMC Updates

ALTBMD Upper Tier

Enhanced
Sensors

Phase 4 (2020)

Expanded capability against potential ICBM threat



Aegis Ashore 5.1 with SM-3 IIB
(two sites)

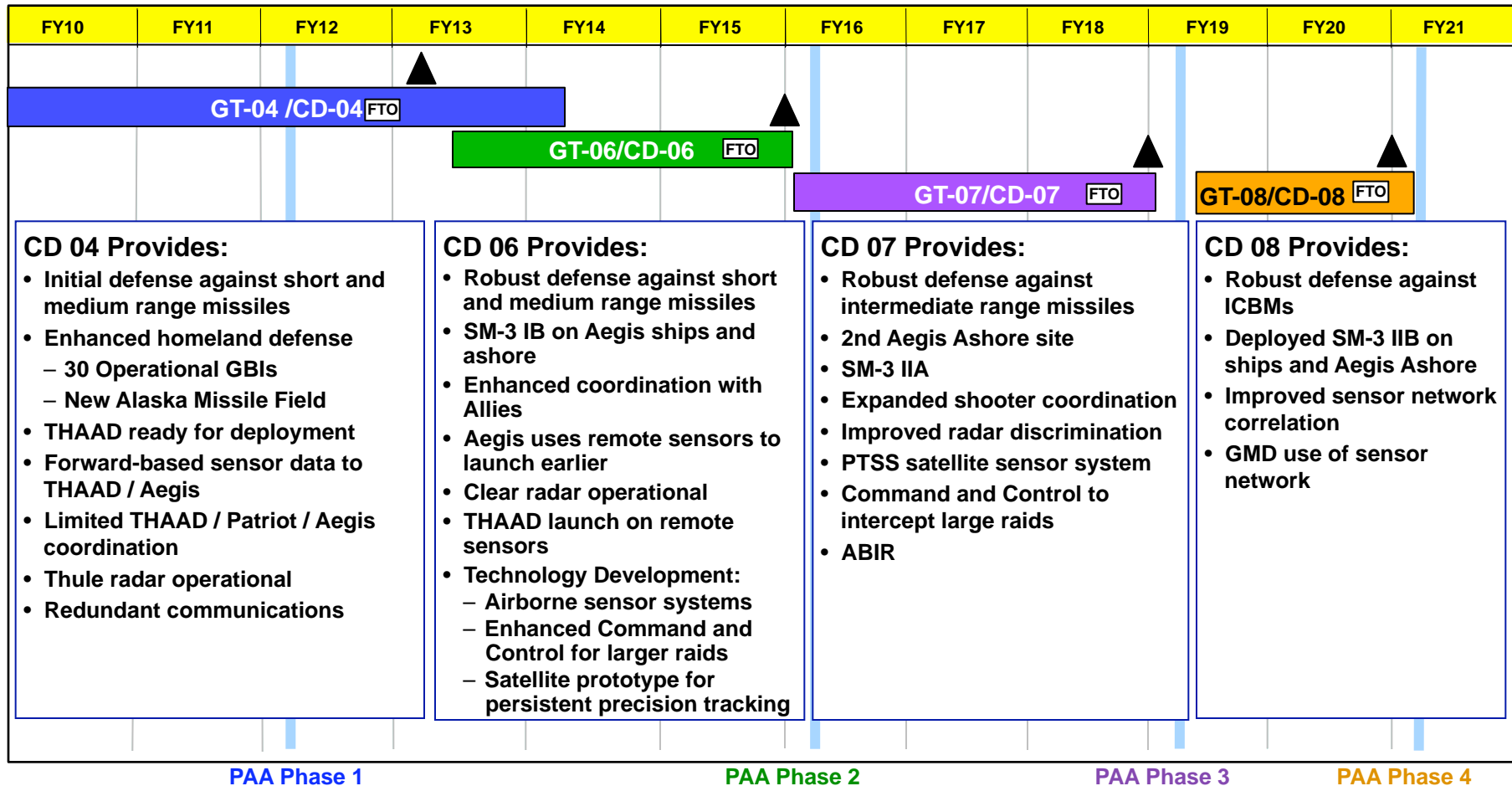


THAAD

Enhanced
Sensors



Missile Defense Capability Development And Integration

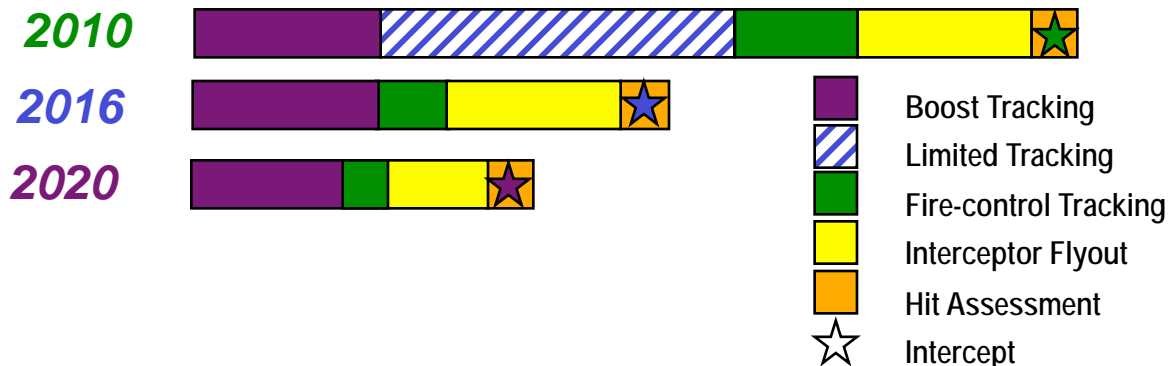
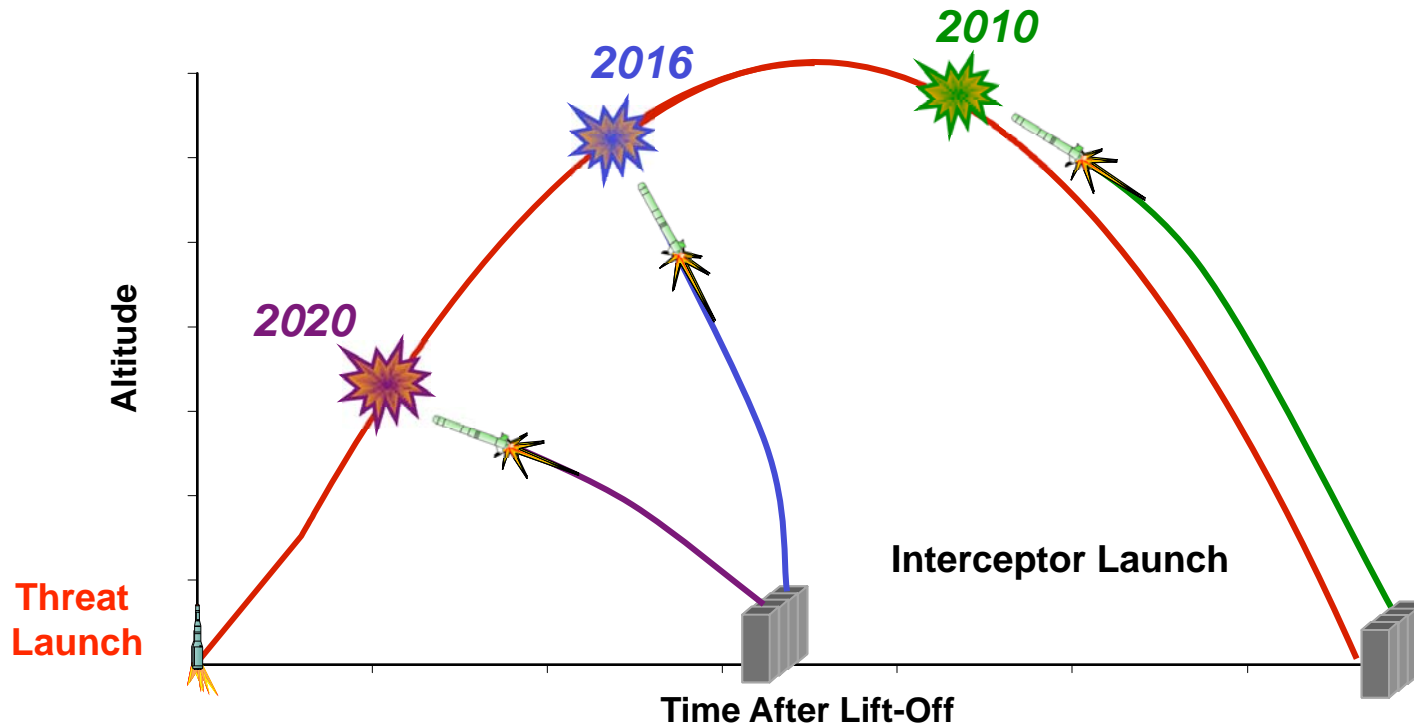


GT = Ground Test
 CD = Capability Delivery
 FTO = Flight Test Operational

▲ Date of Capability Delivery



Early Intercept Strategy



- Benefits of Early Intercept**
1. Large Raid Handling
 2. Shoot-Look-Shoot
 3. Hedge Against Maneuvering Threats
 4. Constrained Countermeasure Deployments



Advanced Technology Programs

Airborne Infrared



Key Capabilities

- Over the horizon acquisition and track
- Enables early intercept / launch on remote and improved raid performance

Enhanced Command, Control, Battle Management and Communications (EC2BMC)



Key Capabilities

- OPIR cue of tracking sensors
- Sensor management
- Multi-sensor fusion, discrimination and tracking
- Net Centric Operations

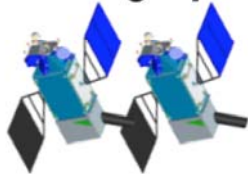
SM-3 BLK IIB/Next Generation Aegis Missile



Key Capabilities

- Engage ICBMs
- Achieve earlier intercepts of MRBMs and IRBMs in theater

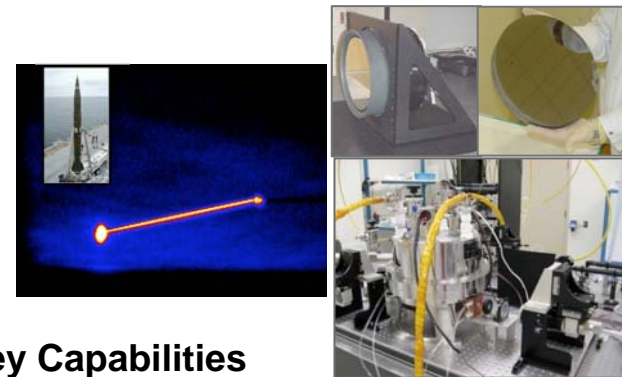
Precision Tracking Space System (PTSS)



Key Capabilities

- Provides fire control data to cue BMDS shooters

Directed Energy Research



Key Capabilities

- Airborne Laser Test Bed
- Develop Diode Pumped Alkali Laser systems for the future



What We Expect From Industry

- **Quality control and mission assurance remain the Agency's highest priorities—contractors must be accountable for quality**
- **Innovative solutions to complex missile defense enhancements / capability improvements**
- **Adherence to System Engineering principles**
 - **Identify performance drivers**
 - **Develop cost effective solutions**
 - **Perform system trades**
- **Propose meaningful incentives for non-developmental scope**
- **Maximize opportunities for synergies between development programs (Sensors, Command and Control, others...)**



Project Mapping

Target Affordability and Control Cost Growth

- Mandate affordability as a requirement
- Eliminate redundancy within warfighter portfolios
- Achieve Stable and economical production rates
- Manage program timelines

Incentivize Productivity & Innovation in Industry

- Reward contractors for successful supply chain and indirect expense management
- Increase Use of FPIF contract type
- Capitalize on progress payment structures
- Institute a preferred supplier program
- Reinvigorate industry's independent research and development

Reduce Non-Productive Processes and Bureaucracy

- Reduce frequency of OSD level reviews
- Work with Congress to eliminate low value added statutory requirements
- Reduce the volume and cost of Congressional Reports
- Reduce non-value added requirements imposed on industry

Promote Real Competition

- Emphasize competitive strategy at each program milestone
- Remove obstacles to competition
 - Allow reasonable time to bid
- Require non-certified cost and pricing data on single offers
- Enforce open system architectures and set rules for acquisition of technical data rights
- Increase small business role and opportunities

Improve Tradecraft in Acquisition of Services

- Assign senior managers for acquisition of services
- Adopt uniform services market segmentation (taxonomy)
- Address causes of poor tradecraft
 - Define requirements and prevent creep
 - Conduct market research
- Increase small business participation

