



Aegis International & BMD: A New Interoperability Network

Track 9: Networks and Networking

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WAR MADE NEW

「 TECHNOLOGY,
WARFARE, AND THE
COURSE OF HISTORY
「 1500 TO TODAY 」

MAX BOOT

AUTHOR OF *THE SAVAGE WARS OF PEACE*



“My view is that technology sets the parameters of the possible; it creates the potential for a military revolution.”

Max Boot
War Made New

Outline

- ▼ U.S. BMD: Ready To Meet The Global Threat
- ▼ U.S. Naval BMD: Leading the Way
- ▼ Lab-based Initiatives
- ▼ Into the Future

“What if free people could live secure in the knowledge that their security did not rest upon threat of instant U.S. retaliation ... but instead that we could intercept ballistic missile attack is a critical national security and is now a strategic capability before us, priority reached our own systems that of our allies?” Secretary of Defense Robert M. Gates, President Ronald Reagan, Preface, *Ballistic Missile Defense Review Report*, “Maritime ballistic missile defense” March 23, 1988
deterrence by providing an umbrella of protection to forward-deployed forces and friends and allies, while contributing to the larger architecture for defense of the United States.” President Barack Obama

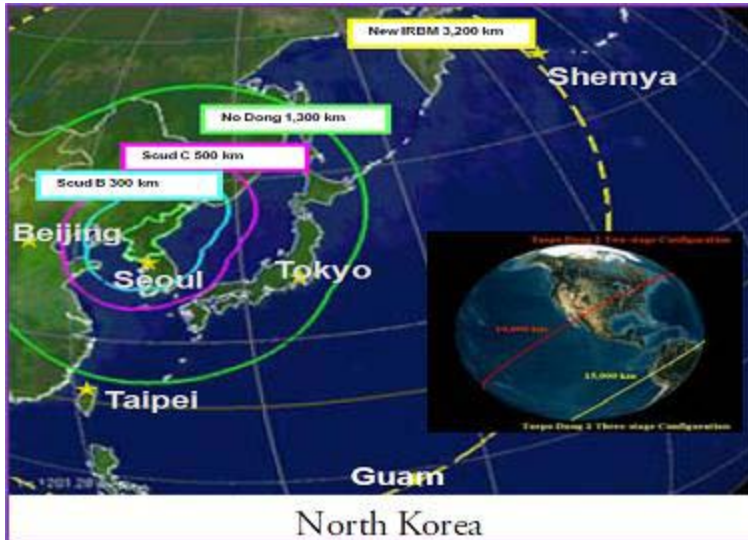
A Cooperative Strategy For 21st Century Seapower

U.S. BMD: Ready To Meet The Global Threat

“The threat posed by ballistic missile delivery systems is likely to increase while growing more complex over the next decade ... Ballistic missile systems are becoming more flexible, mobile, survivable, reliable, and accurate while also increasing in range.”

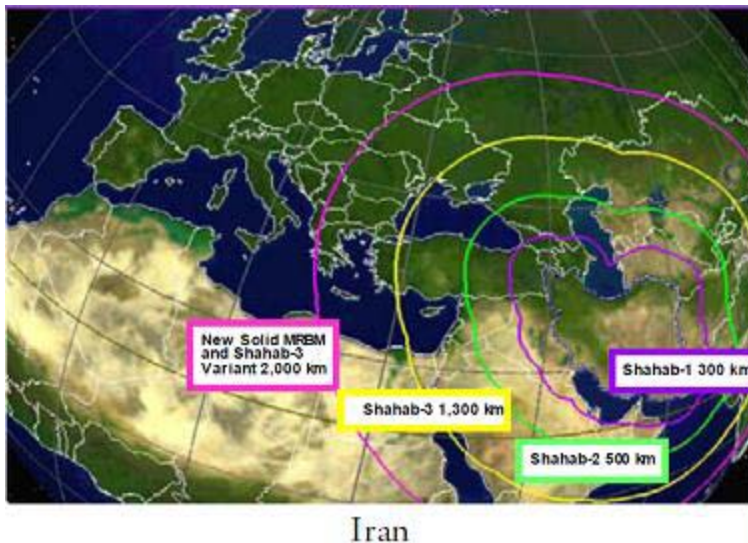
Ballistic Missile Defense Review Report

U.S. BMD: Ready To Meet The Global Threat



▼ The global BMD threat has grown both qualitatively and quantitatively

▼ In response, the U.S. has adopted the Phased Adaptive Approach (PAA)



▼ The Aegis Weapons System is the cornerstone of the PAA

U.S. Naval BMD: Leading The Way

“We are no longer building systems anchored in one place and welded to current threat assessments. We know that the capabilities of potential adversaries do not always progress according to intelligence assessments. Our program must adapt accordingly in the face of evolving and unpredictable threats.”

Michele Flournoy, Undersecretary of Defense, Policy
Ashton Carter, Undersecretary of Defense, AT&L
The Way Forward on Missile Defense
Wall Street Journal, June 17, 2010

U.S. Naval BMD: Leading the Way



- ▼ The Aegis Weapons System boasts 50 years of research and development
- ▼ The Aegis system occupies a key position within the national BMDS
- ▼ Demand far outpaces supply, and is expected to continue to do so

Lab-Based Initiatives

“We will win – or lose – the next series of wars in our nation’s laboratories.”

Admiral James Stavridis
EUCOM Commander
“Deconstructing War”
U.S. Naval Institute Proceedings
December 2005

Lab-Based Initiatives

- ▼ Research and Development
- ▼ Testing and Evaluation
- ▼ Ongoing Support

Research and Development

▼ **SSC PAC and PEO C4I aligned with Missile Defense Agency (MDA) for C4I Systems Development, Integration, and Test**

- Command and Control (C2)
- Tactical Data Links (TDLs)
- Tactical Networks
- Communications
- Battle Space Awareness
- Ship & Shore Integration

▼ **Partner with NSWC PHD, NSWC Dahlgren, NSWC Corona, Lockheed Martin, JHU/APL, Northrop Grumman**

International BMD Support

▼ Japan Aegis BMD (JABMD)

- SSC PAC instrumental in providing operational capability for JABMD
 - Teaming with MDA/International for C4I systems integration on Japanese Ships
 - Japanese Flight Test Missions (JFTM 1-4)
 - Proven Interoperability during Real World Events



▼ Israeli Missile Defense

- SSC PAC teaming to support Arrow Weapons Systems and Bi-National Interoperability
 - Developing solutions for Link 16 systems and Israeli Missile Defense Architecture
 - Teamed with MDA, PEO C4I, and Fleet Commanders to execute BMD system level testing

Ongoing Support

▼ European Phased Adaptive Approach (PAA)

- Aegis Ashore Assured C4I (A3C4I) T&E Lead
- Evaluating C4I requirements to support Aegis Ashore (AA)
- Coordinating with PEO, MDA AB, and NAMDC

▼ Continued Operational and Integration support for MDA

- Helping to bring BMD capability to the Fleet and Warfighter

Into the Future

“I believe that cooperative missile defense with Russia has enormous potential, since the sharing of our technologies and information, which we currently collect about missile launches from third countries, can make both of our countries more secure.”

President Barack Obama

Into The Future

- ▼ Opportunities abound: Aegis expected to be installed in 60 cruisers & destroyers by FY2024; the system will also boast significant upgrades as the PAA is implemented.
- ▼ Challenges persist: Need for integration & interoperability both with coalition partners and with emerging capabilities (i.e., non-kinetic capabilities).
- ▼ The success of the Aegis Weapons System and the Phased Adaptive Approach will be dependent on continued high-level commitment and funding

Questions?