

STATUS OF MISSILE DEFENSE

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Views are those of author

Outline

- **Past**
 - **Present**
 - **Future**
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- G. Canavan, *Missile Defense for the 21st Century* (Heritage Foundation, Washington, D.C., 2003)
 - <http://www.heritage.org/research/nationalsecurity/missiledefense.cfm>

WWII (Pr. Roosevelt)

- Radar-pointed gun successful against VI
 - Terminal
 - Midcourse
- Backtrack V2
 - Boost
 - Interdiction
- Eisenhower on D day

'50-60s: Bombers → Missiles (Pr. Eisenhower, Kennedy)

- '50s: Whirlwind: defense against bombers
 - missiles arrive earlier
- '60s: Army Nike → Sentinel → Safeguard
 - Midcourse (Spartan) long time, but all objects ballistic
 - cannot discriminate
 - blackout midcourse radars by self or precursor attacks
 - Terminal (Sprint): atmospheric discrimination
 - short range → close to cities → NIMBY
 - Boost phase not technically feasible (Bambi)

‘70s (early): Safeguard Debates (Pr. Johnson & Nixon)

- Physics precluded effectiveness
- Advocated strongly anyway
- Pyrrhic victory—activated for few months
 - Taken to indicate missile defenses impossible
 - ABM Treaty & MAD doctrine
 - Continuing mistrust—No change since ’72

'70s (late) Systems → Technology (Pr. Carter)

- Meant to kill missile defense—saved it
 - Hit to Kill by Army
 - no nuclear release
 - x-band radars to reduce blackout
 - Space based
 - Laser (SBL) by DARPA
 - Neutral particle beam (NPB) discrimination by AF
 - Satellite sensors to cover globe (technically)
- Missile accuracy

‘80s: Strategic Defense Initiative (Pr. Reagan & Bush)

- WHSC screen options to Soviet buildup
 - “We build, they build. We don’t build, they build”—Brown
 - Little beyond Force Modernization in offensive systems
 - Defensive systems immature, but promising
- 2 years until Brilliant Pebble
 - survive & address Soviet missile threat
 - GBI underlay for 2 layer system—not critical
- BP dropped for deployment: political > technical
- Uncertain GBI layer face full attack
- Defense or bargaining chip? Got S.U.s’ attention

Theater Missile Defense → National Missile Defense (Pr. Clinton)

- Gulf War deficiencies recognized Pr. Bush
- Killed BP
- GBI—proposals returned unopened
 - GBI remained alive in Army GBX at Huntsville
- NK No Dong forced national missile defense
 - resurrected GBI only
- IRT: GBI assumed more threat knowledge
 - than Intel could provide

National Policy on Ballistic Missile Defense

- Deploy as soon as technically feasible
 - NMD Act 1999
- Withdraw from ABM Treaty
 - Pr. Bush 14 Dec 2001
- Begin deploy 2004
 - White House Fact Sheet, 20 May 2003
 - No fixed architecture
 - Cooperation with close, long-standing allies

Ballistic Missile Defense Block 04 (Pr. Bush)

<u>Phases</u>	<u>Pro</u>	<u>Con</u>
– Boost		
• ABL	range, cover	size, wt, integr, cost, leth
• KEI	KV, multi-use	develop, range
• SBI	coverage, \$	develop, absentee, politics
– Midcourse		
• GMD	develop, mult	coverage, cost, discrim
• Naval	ships, radar	range, develop
– Terminal	THAAD, PAC	ICBM _s
• C2BMC	regional	global

MDA Summary Self Assessment)

- Goals established by President being met
- Readiness is #1 priority
- Aggressive RDT&E program
- Proposed program balance development & fielding efforts w/ \$ constraints

IRT Summary

- GMD needs to enter Performance & Reliability Verification Phase
- Recommendations
 - Rigorous flight readiness certification process
 - Strengthen systems engineering
 - Additional ground-based qualification testing
 - Contractors functionally accountable
 - Assure that GMD program is executable

Issues

- GMD failed field tests
 - GMD discrimination
 - Boost phase immature
 - Political opposition
 - Terminal vs ICBM
 - Command & Control
 - Global conflict
- Q&A should fix
adequate rogues
rebalance \$
delayed timescale
accelerate develop
extend C2BMC
missile defense key