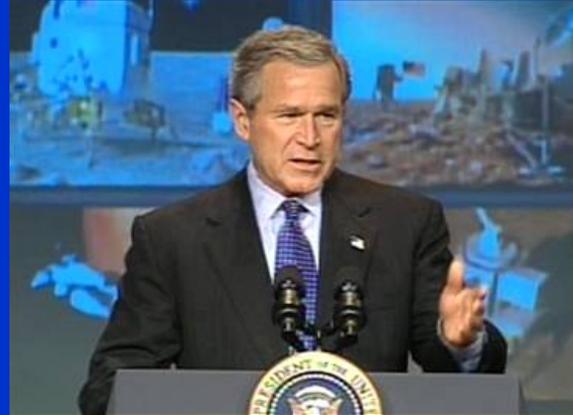
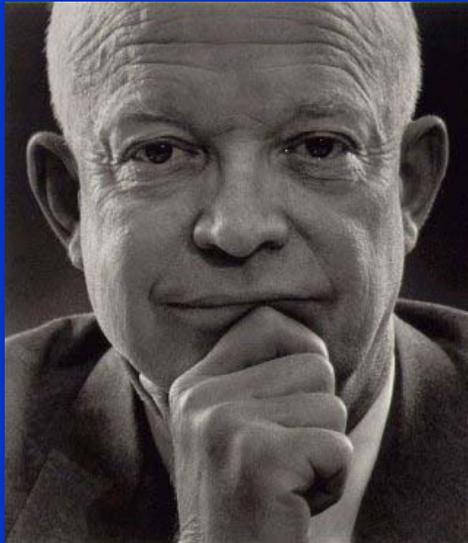


Evolving U.S. Perspectives on Space Security



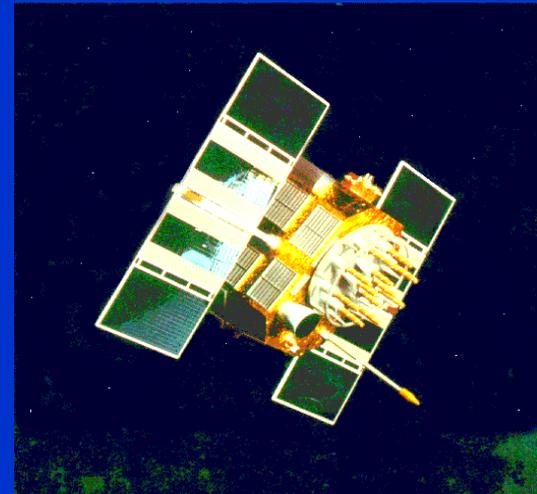
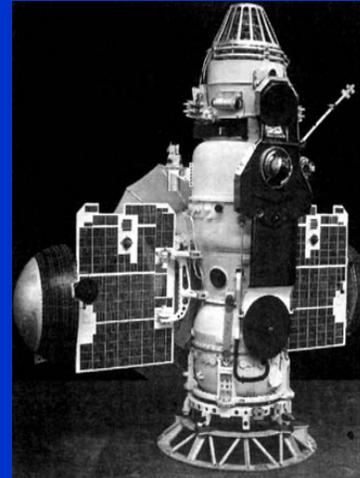
Prof. Clay Moltz

Naval Postgraduate School

[The views expressed in this presentation are solely the personal opinions of the author and do not represent the official policy of the U.S. Navy or the Department of Defense.]

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History of Contrasting U.S. Approaches to Space Security since 1957



Overview

- Defining space security:
 - “The ability to place and operate assets in space without external interference, damage, or destruction”
- *Means* to this end have differed over time
 - Cyclical periods of “military-first” and “diplomacy-first” strategies; why?
- But, areas of consensus may be emerging
 - Changing conditions in space suggest that cooperative strategies may be on the horizon

“Cycles” in U.S. Space Security Policy

- Military-first vs. diplomacy-first periods:
 - 1958-62 (nuclear testing in space)
 - 1963-80 (treaties plus defense “hedging”)
 - 1981-89 (ASATs and SDI)
 - 1990-2000 (cooperative engagement with Russia)
 - 2001-present (MD, ASATs, and Global Strike)

“Military-First” Assumptions

- Weaponization of space is inevitable
- Treaties are ineffective
- “Dominance” is possible (and being second is dangerous)
- Space defenses are affordable and technologically feasible



Periods and Transitions (I)

- **Eisenhower and early Kennedy (near-term defenses)**
 - Sec. of State Dean Rusk (1962): Space is likely to become “...man’s next battlefield”
 - Starfish Prime test (1962) and LTBT (1963)
- **Reagan (U.S. rebuttal to feared Soviet superiority)**
 - DOD Under Secretary Edward Aldridge (1982): “If we need weapons in space, we will go get them.”
 - Gorbachev reforms and INF, CFE, START
- **George W. Bush (space control)**
 - *National Space Policy* (2006): U.S. right to “deny... freedom of action [in space] to adversaries”
 - 9/11 (2001) and Democratic control of Congress (2006)

“Diplomacy-First” Assumptions

- Space rivals are few and weapons are not inevitable
- Treaties *can* work (asset of space transparency)
- Environmental hazards in space rule out “dominance”
- Space defenses are costly and technologically ineffective

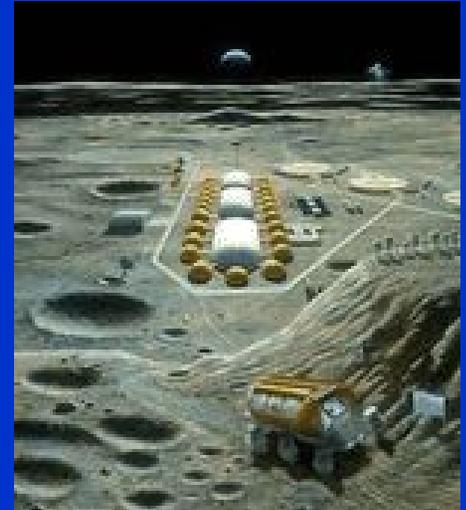


Periods and Transitions (II)

- Johnson, Nixon, Ford, and Carter (space arms control)
 - Outer Space Treaty, ABM Treaty, SALT
 - Soviet ASAT tests and SS-18 deployments
- Bush I and Clinton (U.S-Russian space management)
 - ABM Treaty maintenance
 - DPRK missile test and Bush II election

Next Stage in U.S. Policy?

- Past cycles/current realities suggest **diplomacy-first** strategy is next:
 - U.S. budget problems
 - Democratic control of Congress likely through 2010
 - International *opposition* to space weapons
- But much depends on:
 - Space activities by foreign powers (China, Russia, India)
 - Who is in the White House
 - Possible role of new space “leaders”

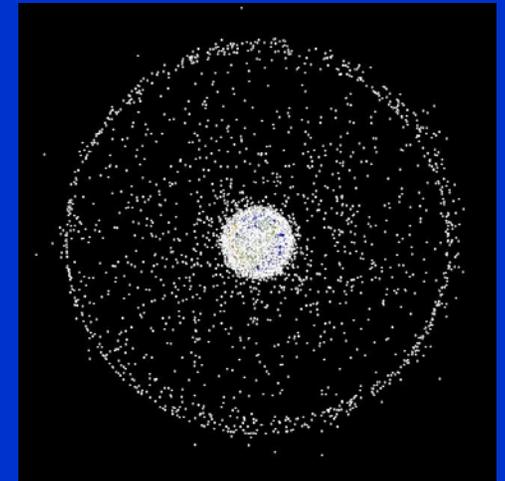


Emerging Areas of U.S. Consensus?

- Some international efforts are beneficial:
 - Limited Test Ban Treaty (1963)
 - Outer Space Treaty (1967)
 - COPUOS Debris Mitigation Guidelines (2007)
- Emerging defense priorities:
 - Prevent kinetic-energy weapons from being used in orbital space
 - Military actions (if needed) should be temporary, reversible, and debris-free
 - “Non-offensive” defenses required to reduce U.S. vulnerabilities (ORS)

Changing Space Conditions

- Orbital debris problem is worsening
 - Illogic of space war for all major actors
- Expansion of non-state actors in space (growing commercialization)
- Emerging doubts about utility of existing ITAR regulations
- Possible use of space for broader security goals (NSSO and solar power)



Other Space Problems with an International Dimension

- Radio frequency allocation
- Geo-stationary orbital slots
- Traffic control and space surveillance
- Solutions may *require* international engagement
- Will the U.S. lead? If so, where?



Conclusion

- *Competing* U.S. visions of space security remain
- But “environmental security” is an emerging concern
- Also, new commercial role in U.S. space “security” thinking
- Outcomes still uncertain
- My prediction: look for new U.S. outreach on space security talks and cooperation

