

Space Verification Workshop



Colonel Daniel A. Dant
Director
Space Policy



POLICY

Briefing Orbitology

- Changing Context
- National Space Policy
- National Security Space Strategy



POLICY

Context Comparison: Then and 2010

☐ Space Circa 1960

- Two nations
- Focus = Cold War
 - Civil – race to moon
 - Intelligence – “missile gap”
 - Military – deter nuke war
 - Commercial – “Tang”
- Adversary attacks deterred by links to nuclear warfare
- Industrial base grows
 - Priority for resources
 - No foreign competitors
- Framework: OST 1967
- Strategy: Unilateral Dominance

☐ Space January 2010

- Multiple nations and entities
- Focus = Space to the masses
 - Civil – explore & more
 - Intelligence – CT to I&W
 - Military – troops to civilians
 - Commercial - ticket to ride
- Adversary attacks justified by links to conventional warfare
- Industrial base shrinks
 - Compete for resources
 - Foreign competitors
- Framework: **OST 1967**
- Strategy: **Unilateral Dominance**



POLICY

The Strategic Environment Has Changed

Congested

- DoD tracks roughly 22,000 man-made objects in orbit
- Likely 100,000s more objects too small to track, but still a threat to satellites
- 9,000 transponders expected on-orbit by 2015

Contested

- There is a range of threats that can purposefully interfere with satellites
- The threat is not limited to high-end anti-access; jammers are proliferating too
- Strategy / doctrine for counterspace use is shifting the nature of the threat

Competitive

- U.S. satellite manufacturing market share ~65% in 1997 → ~30% in 2008
- Inconsistent acquisition and production rates, long development cycles, consolidation of suppliers under first tier prime contractors
- Challenges recruiting, developing, retaining qualified workforce



POLICY

NATIONAL SPACE POLICY



National Space Policy Goals

POLICY

- Energize competitive domestic industries
- Expand international cooperation
- Strengthen stability in space
- Increase assurance and resilience of mission-essential functions
- Pursue human and robotic initiatives
- Improve space-based Earth and solar observation



POLICY

Vital National Interests Comparison

New Policy

- ❑ The United States considers the **sustainability, stability, and free access to, and use of, space vital to its national interests.**

Old Policy

- ❑ The United States considers **space capabilities**—including the ground and space segments and supporting links—**vital to its national interests.**



POLICY

Deterrence Comparison

New Policy

- ❑ The United States will employ a variety of measures to **help assure the use of space for all responsible parties**, and, consistent with the **inherent right of self-defense**, deter others from interference and attack, defend our space systems and **contribute to the defense of allied space systems**, and, if deterrence fails, defeat efforts to attack them.

Old Policy

- ❑ Consistent with this policy, the United States will: preserve **its** rights, capabilities, and **freedom of action** in space; dissuade or deter others from either impeding those rights or developing capabilities intended to do so; take those actions necessary to protect **its** space capabilities; respond to interference; and **deny, if necessary, adversaries the use of space capabilities hostile to U.S. national interests.**



International Framework Comparison

New Policy

- The United States will **pursue** bilateral and multilateral **transparency and confidence-building measures** to encourage responsible actions in, and the peaceful use of, space.
- The United States will **consider** proposals and concepts for **arms control measures** if they are equitable, effectively verifiable, and enhance the national security of the United States and its allies.

Old Policy

- The United States will **oppose the development of new legal regimes** or other restrictions that seek to prohibit or limit U.S. access to or use of space.
- Proposed arms control agreements or restrictions **must not impair the rights of the United States** to conduct research, development, testing, and operations or other activities in space for U.S. national interests.



POLICY

NATIONAL SECURITY SPACE STRATEGY



POLICY

Ends

“To promote security and stability in space, we will pursue activities consistent with the inherent right of self-defense, deepen cooperation with allies and friends, and work with all nations toward the responsible and peaceful use of space.”

- National Space Policy

Strengthen safety, stability, and security in space

- Nations exercise shared responsibility for space domain

Maintain and enhance the strategic national security advantages afforded to the United States by space

- Meet needs of space users, even if space environment is degraded

Energize the space industrial base that supports U.S. national security

- Improve foundations of space enterprise – people, process, industry



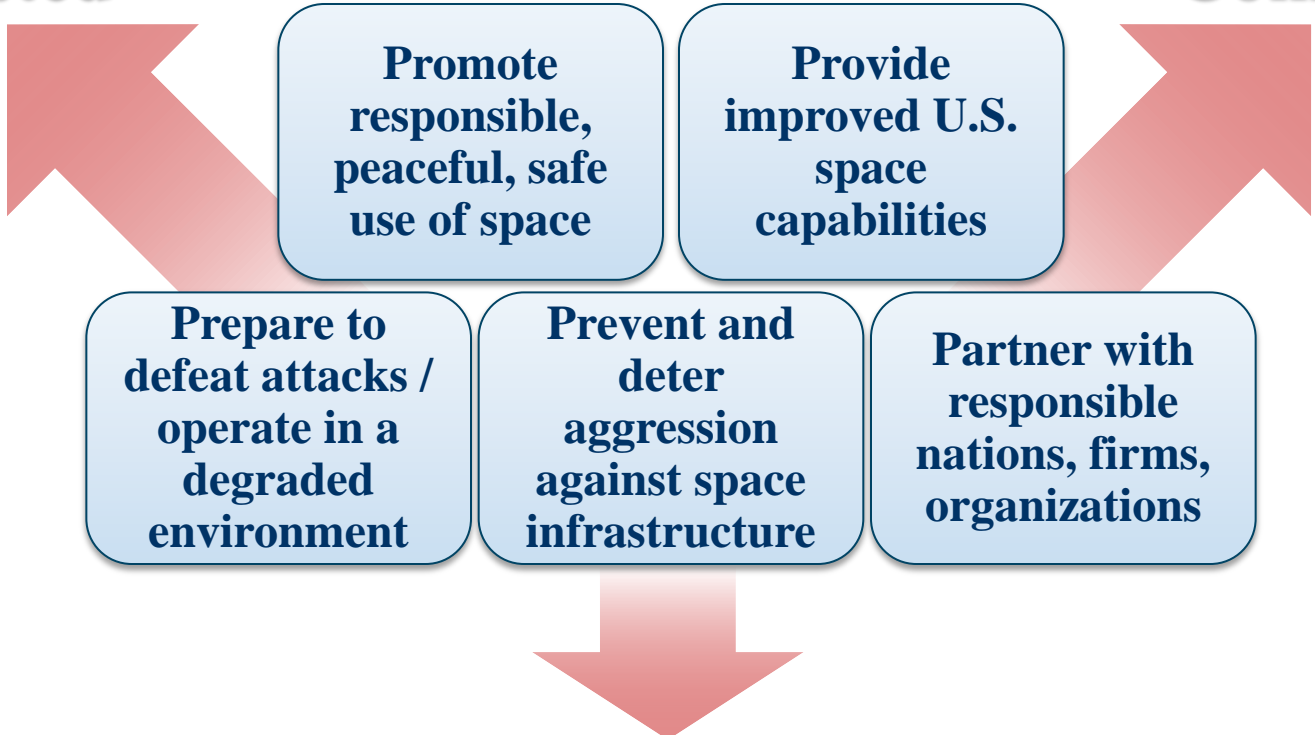
POLICY

Addressing the Challenges of the "3-C's"

Congested

Competitive

- Norms
- TCBMs
- Standards
- SSA
- Information Sharing
- Resilient Architecture
- Protection
- Cross-domain Solutions



- Acquisition
- Technology
- Industrial Base
- Space Cadre
- Sharing U.S. Capabilities
- Collaboration

Contested

- Coalitions and Alliances
- Attribution
- Response Options
- Foundational Intelligence

Active U.S. leadership drawing on all elements of national power



POLICY

Change the Game to Address the 3xC's



Promote responsible, peaceful and safe use of space

Provide improved U.S. space capabilities

Partner with responsible nations, international organizations, and commercial firms

Prevent and deter aggression against space infrastructure that supports U.S. national security

Prepare to defeat attacks and to operate in a degraded environment



POLICY

The NSSS = A Necessary Change

“We have the most to lose from this changing environment of space, and we have the most to gain if we adapt our strategy and process.”

- Deputy Secretary of Defense William J. Lynn
Speech to 2010 Strategic Space Symposium

- The strategic environment has changed ... our strategy must change accordingly

- Department of Defense and Intelligence Community will implement the NSSS by evolving policies, strategies, and doctrine for national security space

- Success requires innovation and new ways of doing business

The NSSS is a pragmatic approach to maintain the advantages we derive from space while confronting the challenges of an evolving strategic environment.



POLICY

Balancing Act – Strategists Must Do Both

“Great Taste”

“Less Filling”

Freedom of Action

Transparency

Sources and Methods

Verification

Sovereignty

Coalitions

Protect advantages

Share

Efficiency

Resiliency

