



National Security Space Strategy





The strategic environment has changed

“Changes in the space environment over the last decade challenge our operations in space.”

- Secretary of Defense Robert M. Gates
Statement on release of National Space Policy

- **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**

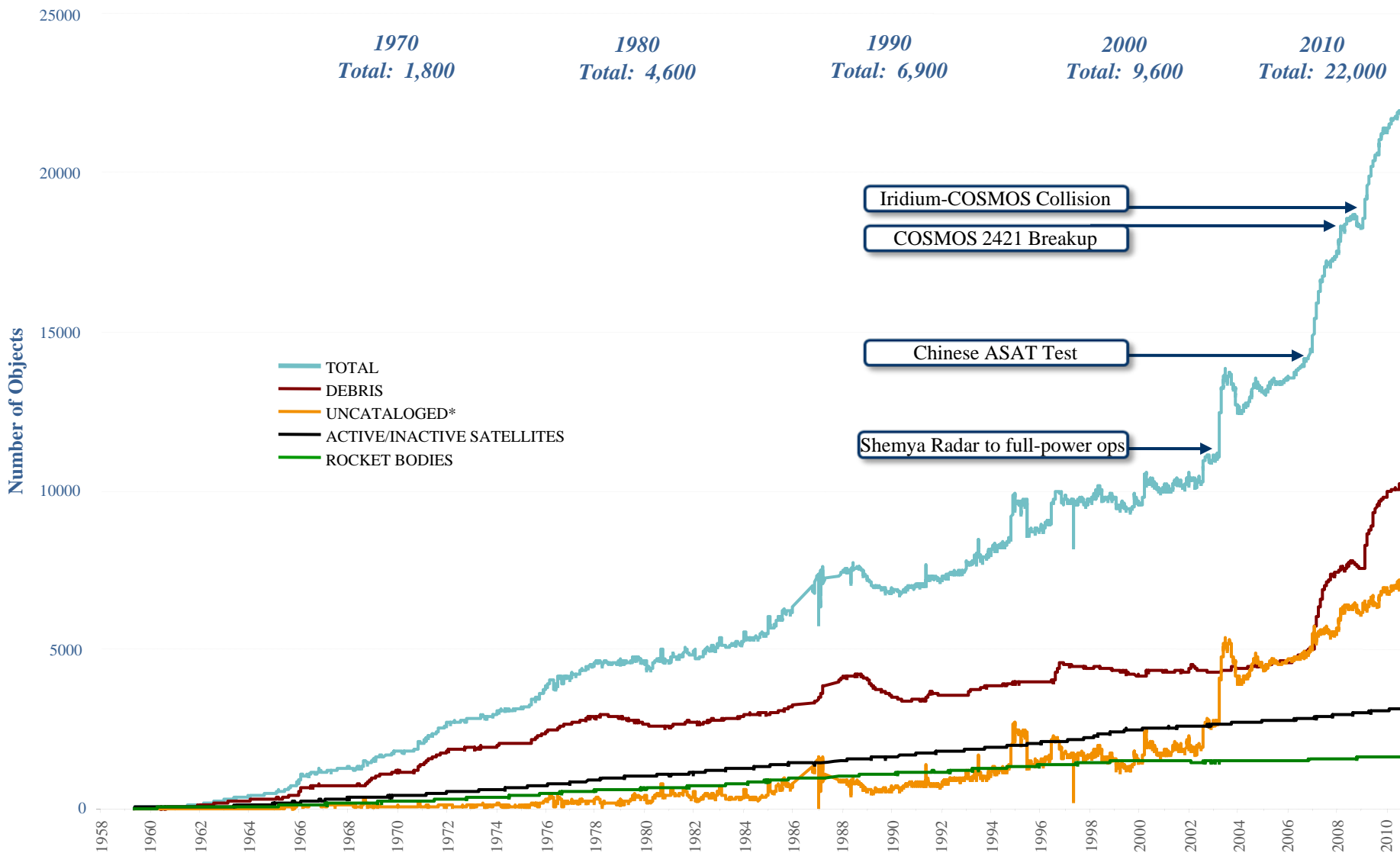
- There is a range of threats that can purposefully interfere with satellites
- The threat is not limited to high-end anti-access; jammers are proliferating too
- Strategy / doctrine for counterspace use is shifting the nature of the threat

- **Competitive**

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



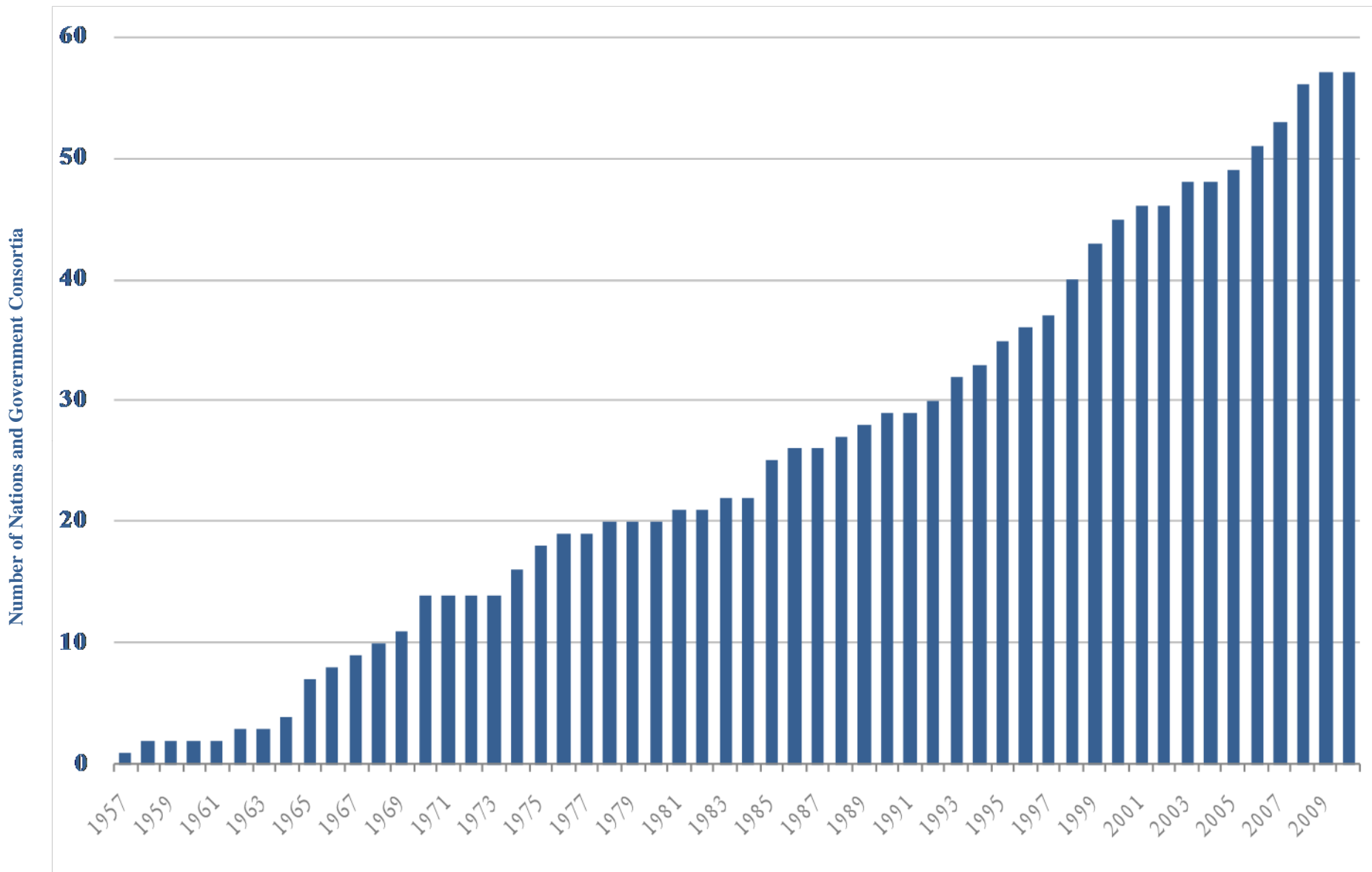
Satellite Catalog Growth



* Uncataloged= unknown object and/or unknown origin



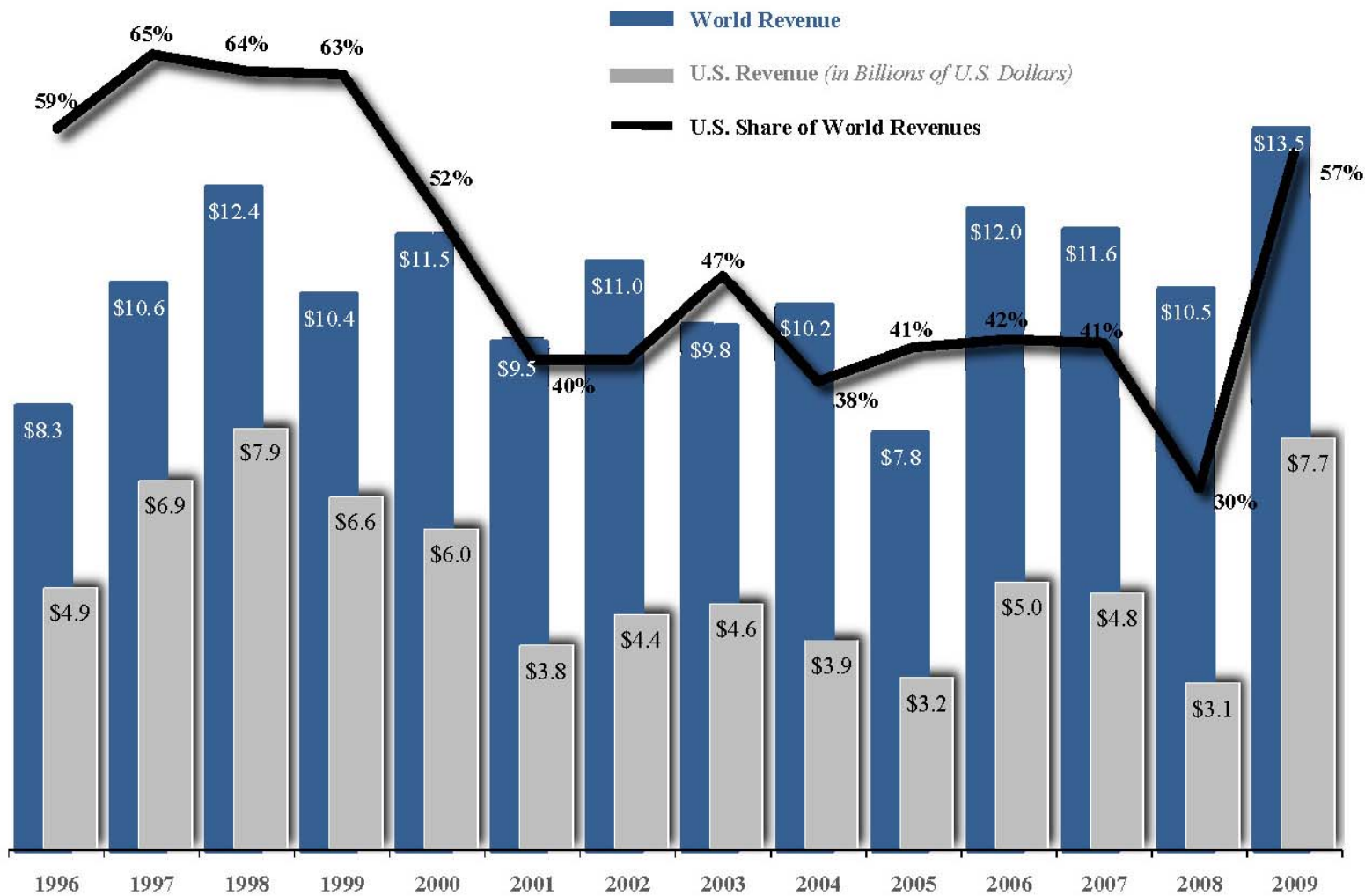
Number of Nations and Government Consortia Operating in Space



Source: National Air and Space Intelligence Center



Decline in U.S. Share of Global Satellite Manufacturing Market



Notes: Revenue figures are in-year estimates, not adjusted for inflation over time. Satellite Manufacturing revenues are recorded in the year the satellite is delivered/launched, not when contract is awarded or interim payments are transacted. World revenue includes U.S. revenue.



Our strategy must change accordingly

“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 the space enterprise – people, process, and industry



We will pursue 5 related approaches

- **Promote** responsible, peaceful and safe use of space
 - Lead by example, supporting development of transparency and confidence-building measures (TCBMs), norms, standards, and best practices
 - Foster cooperative space situational awareness (SSA) and support safe space operations
- **Provide** improved U.S. space capabilities
 - Continue improving space acquisition, technology development, and space cadre
 - Foster robust, competitive, flexible, and healthy space industrial base
- **Partner** with responsible nations, international organizations, and commercial firms
 - Operate in coalitions of like-minded spacefaring nations; pursue opportunities for cost- and risk-sharing
 - Explore sharing space-derived information as “global utilities” like GPS
- **Prevent and deter** aggression against space infrastructure that supports U.S. national security
 - Multilayered approach: shape the international environment, encourage potential adversary restraint, improve our intelligence posture, and develop a range of response options
- **Prepare** to defeat attacks and to operate in a degraded environment
 - Improve resilience of systems and constellations
 - Develop tactics, techniques, and procedures to operate in a degraded or denied space environment



Addressing the challenges of the “3-C’s”

Congested

Competitive

Promote responsible, peaceful, safe use of space

Provide improved U.S. space capabilities

Prepare to defeat attacks and to operate in a degraded environment

Prevent and deter aggression against space infrastructure

Partner with responsible nations, firms, international organizations

Contested

Coalitions and Alliances
Attribution
Foundational Intelligence
Response Options

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

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

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



This concludes the Space Posture Review

- **2009 National Defense Authorization Act directed Secretary of Defense and Director of National Intelligence jointly to conduct a comprehensive review of the U.S. space posture, to include:**
 - Definition, policy, and requirements for seven focus areas
 - Description of current and planned space acquisition programs
 - Description of future space systems and technology development
 - Assessment of relationship among various policies
 - Assessment of the effect of U.S. policy on foreign counterspace development
- **OSD and ODNI released an interim report in March 2010**
 - Contained programmatic descriptions and assessments required
 - Delayed production of overarching guidance until after release of the new National Space Policy in June 2010
- **The NSSS concludes the Space Posture Review by providing the overarching strategic guidance requested by Congress**



The NSSS is 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.