



# National Security Space Strategy 2011

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# 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 2010 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



# Our strategy has changed 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.”*

- 2010 National Space Policy

- **Strengthen safety, stability, and security in space**
  - Nations exercise shared responsibility for space domain
- **Maintain and enhance the strategic advantages afforded 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 are pursuing 5 related approaches

- **Promote** responsible, peaceful and safe use of space
  - Lead by example, supporting development of transparency and confidence-building measures, norms, standards, and best practices
  - Foster cooperative space situational awareness 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” with partnered nations
- **Prevent and deter** aggression against space infrastructure
  - 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



# 2012 DoD Strategic Guidance

## Operating effectively in space is a key DoD mission

- **Need to:**

- Promote a rules-based international order
- Operate when possible with allied and coalition forces
- Be resilient and support access in A2/AD environments
- Support combined-armed campaigns across domains

*The new Strategic Guidance builds on and reinforces  
the 2011 National Security Space Strategy*





# International Code of Conduct for Space Activities

*“We seek a safe space environment in which all can operate with minimal risk of accidents, breakups, and purposeful interference.”*

- National Security Space Strategy

- **An international Code of Conduct can enhance U.S. national security**
  - A widely-subscribed Code can encourage responsible space behavior and single out those who act otherwise, while reducing risk of misunderstanding and misconduct
  - Debris mitigation standards, guidelines for reducing radiofrequency interference, and shared space situational awareness can help protect space and the advantages we derive
- **The EU’s draft is a promising basis for an international Code**
  - The EU’s draft focuses on reducing the risk of creating debris and increasing transparency of space operations. It reflects U.S. best practices and is consistent with current practices such as notification of space launches and sharing of space data to avoid collisions
  - The EU draft is not legally binding and recognizes the right of self-defense
- **We are committed to ensuring that a Code advances U.S. national security**

*An international code of conduct can strengthen U.S. national security by promoting responsible behavior in a domain that is increasingly congested, contested, and competitive*



# Combined Space Operations

- **USSTRATCOM is transitioning the Joint Space Operations Center to a Combined Space Operations Center**
- **The goals of combined space operations are to:**
  - Leverage allied space capabilities to augment our own
  - Increase resilience in an increasingly contested environment.
  - Bolster deterrence of attack against collective space assets
- **Combined space operations require increased sharing of space situational awareness and operational information**

*We must operate in coalition in space as we do in other domains.*



# Deterrence in Space

- 1 Internationalize norms that enhance stability
- 2 Build coalitions for collective security
- 3 Deny benefit of attack by increasing resilience
- 4 Be prepared to respond, not necessarily in space

Consider not just  
deterrence in space

... but also space  
in deterrence

Signal that US considers space vital to its national interests, reserves right to respond to attack at time and place of own choosing, and is ready to “fight through” interference

- Cannot consider space in isolation – national decision-making will take place in broader context
- Relationship to other domains, especially cyber, which is tightly intertwined with space
- Potential impact – positive or negative – on global deterrence and crisis stability





# Export Control Reform

- **Export control reform will strengthen national security and help energize the space industrial base.**
  - We must ‘build higher walls around fewer items,’ protecting assets that give our warfighters a critical edge while allowing the export of those items that are generally available on the global market.
  - Export control reform will allow us to increase interoperability with allies and enhance prohibitions on exports to countries of concern.
  - At the same time, it will help energize the industrial base by reducing incentives for the “design out” of U.S. components and ease the licensing burden on our exporters.



# A new strategy for new challenges

- **The National Security Space Strategy responds to a space environment that is increasingly congested, contested, and competitive.**
- **In addition to protecting the advantages we derive from space, we must also protect the domain itself and the industrial base that provides our capabilities.**
- **The new DoD Strategic Guidance builds on and reinforces the NSSS.**

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