



NATIONAL
SECURITY
SPACE
ASSOCIATION

Recommendations For Strengthening The U.S. National Security Space Enterprise

Studies and Analysis Center
National Security Space Association

March, 20 2019

About the National Security Space Association

NSSA is a non-profit organization headquartered in Arlington, VA. Founded in 2018, NSSA's mission is to educate and inform the public debate about national security space issues, to help maintain and enhance the United States' preeminent position in space, and to support the men and women who work in the U.S. national security space enterprise across the military, intelligence community, and private sector.

Introduction

The National Security Space Association, comprised of private sector enterprises and citizens involved in all tiers of America's space industry, strongly supports robust efforts to sustain U.S. leadership in space. Wise decisions and bold actions by Presidents and Congresses of both parties dating back to the Eisenhower era enabled America to become the world's leading space-faring nation. The United States has leveraged its preeminent position in space for prestige, influence, knowledge, prosperity, and security.

America's leadership position in national security space has eroded, however. (The term "national security space" encompasses all aspects of the defense and intelligence space enterprise, including America's supporting industrial base.) Foreign powers are aggressively pursuing capabilities to undermine U.S. strategic advantages in space. China and Russia are developing, testing, and fielding counterspace weapon systems that threaten our freedom of access and use of space, jeopardize U.S. and allied military forces, and put the United States at risk. Concurrently, fragmented governance structures, inefficient acquisition practices, and inadequate investment priorities have weakened the U.S. national security space enterprise and its ability to contribute to the well-being and defense of the nation. The reemergence of long-term, great power competition and threats to America's freedom of access, and the use of space without hindrance, is a strategic challenge that must be confronted on an urgent, bipartisan basis.

To its credit, the Trump Administration has launched several major initiatives to focus attention on and provide clear guidance and direction to U.S. national security space programs and activities. These include the revitalization of the National Space Council under the leadership of Vice President Pence, a plan to reconstitute the U.S. Space Command, and the standup of a new Space Development Agency. These steps -- plus the Administration's proposal to establish a Space Force as an independent sixth armed service -- have prompted an important public policy debate about whether the U.S. national security space establishment is properly organized and positioned to deter or, if necessary, defeat the threat or use of force in space. These important measures, along with the proposed sizable increase in funding for various national security space programs and activities included in the President's budget request for fiscal year (FY) 2020, are promising signs of the growing recognition of the criticality of space power.

The United States must take additional steps now to build on this recent progress and assure its leadership position in national security space, with particular emphasis on Department of Defense (DoD) and Intelligence Community (IC) governance, programs, cadre development, and operations. At the same time, it is essential that the Federal Government work closely with the U.S. national security space industry in order to address the growing challenges to U.S. leadership in space. To this end, the National Security Space Association recommends serious consideration be given to the following recommendations to strengthen U.S. national security space -- including specific actions to bolster the partnership between the Federal Government and America's space industrial base that serves as the foundation of America's strength and power in space.



Prioritizing National Security Space

- **Make sustained U.S. preeminence in national security space a bipartisan national priority.** Sustaining U.S. preeminence is by definition a long-term, strategic undertaking that will require decades of commitment across numerous administrations and Congresses. Efforts must be made to develop and maintain a bipartisan approach that endures regardless of which political party controls the White House, Senate, or House of Representatives. Such a bipartisan consensus enabled the United States to compete effectively, establish a leadership position in space, and ultimately prevail in the Cold War. America has come together on vital national programs before, and we can and must do it again. A strong and vibrant defense and intelligence space enterprise is essential for U.S. national security.

National Security Space Governance

- **Establish effective governance of the U.S. national security space enterprise.** It is vital that our nation's leaders work together to establish or clarify authorities, responsibilities, roles, and functions for the conduct of U.S. defense and intelligence space activities. Numerous independent and U.S. government boards, commissions, panels, and studies have identified serious problems caused by fragmented management and organization, misaligned authority, responsibility, and accountability, and lack of the necessary culture and ethos. The focus and attention now being paid to this issue provides a once-in-a-generation opportunity to implement an effective and efficient governance structure to guide the U.S. national security space enterprise for decades to come.
- **Clarify "lanes in the road" for developing and acquiring national security space systems.** At present, numerous DoD and IC organizations are involved in acquiring defense and intelligence space systems, including the Air Force Space and Missile Systems Center, the Defense Advanced Research Projects Agency, the Missile Defense Agency, the Space Development Agency, the National Reconnaissance Office, the Air Force Space Rapid Capabilities Office, the Air Force Space Command, the Air Force Research Laboratory, the Naval Research Laboratory, the Army Space and Missile Defense Command, the Navy Space and Naval Warfare Systems Command, and more. These organizations use a variety of statutory and other authorities to support the acquisition of space capabilities for the Nation. The "lanes in the road" have become confused with multiple organizations seeking to fulfill the same set of requirements. It is increasingly difficult for America's national security space industry to determine which organizations are responsible for developing key technologies, systems and architectures. Our nation's leaders must act to clarify the roles, responsibilities, and authorities of the relevant organizations involved in acquiring national security space systems.

Invest in Our Greatest Asset -- National Security Space Personnel

- **Focus attention and resources on our most valuable asset: national security space personnel.** People and culture matter most. Ensuring the ability to recruit, educate, train, and sustain a professional cadre of technically competent and operationally proficient national security space professionals must be a core consideration in determining how best to organize, train, and deliver superior national security space capabilities. America's



leaders must commit to a long-term program to attract and sustain a cadre of rigorously trained, well educated, and highly motivated national security space professionals.

Needed Investments and Importance of Budget Stability

- **Provide funding stability and increased flexibility for U.S. national security space activities.** The national security space budget frequently has been used in the past as a bill-payer for other priorities. Wild swings in defense and intelligence space budgets have yielded stop-and-start programming that promotes inefficiencies and negatively impacts industry's ability to deliver superior products on schedule and within budget. Current fiscal projections and practices limit flexibility and only permit sequential modernization of key national security space missions. Operating under Continuing Resolutions guarantees schedule delays and programmatic inefficiencies, while reinstatement of Budget Control Act funding levels for national defense would seriously undermine efforts to reverse the erosion of the U.S. leadership position in space. Additional funding with enhanced flexibility is essential to foster innovation, improve agility, and accelerate research, engineering, acquisition, and sustainment of vital new mission solutions. As noted above, the proposed plus-up to defense and intelligence space programs and activities in the FY2020 President's budget request represents an important step, but such increases must be sustained over the next decade to have a lasting effect.
- **Develop a National Security Space Roadmap that delineates planned investments in relevant technologies and needed systems/capabilities over the next twenty years.** Publication of a National Security Space Roadmap would provide much needed insights into defense and intelligence space long-range plans and enable U.S. national security space industry leaders to make more informed decisions in areas such as internal investments (e.g., allocation of internal research and development funds), alignment of personnel, etc. In turn, these internal company investments and other actions can help mitigate programmatic, technical, and schedule risks in future national security space systems and programs.
- **Increase investments in advanced technologies to spur innovation in national security space systems.** The national security space industrial base would greatly benefit from increased investments in a broad range of advanced technologies. Such investments will spur innovation, create high-paying jobs that bolster the U.S. economy, and help assure future U.S. technological superiority. Equally important, they reduce the risks associated with future defense and intelligence space programs. Investing in industry partners and maintaining a strong U.S. industrial base are essential to attracting and retaining the very best talent within the national security space community.
- **Base future national security space architecture and program decisions on rigorous systems engineering and analyses.** Critical decisions regarding future defense and intelligence space architectures and systems must be based on rigorous systems engineering and analyses. The diminution of analytic and engineering skills within the defense space cadre, in particular, is adversely impacting the ability to conduct rigorous architectural and programmatic trade studies upon which decisions with major resource and operational consequences are based. Independent overseers of national security



space programs within the DoD, the IC, and Congress must ensure that critical architectural and programmatic decisions are fully justified based on credible technical analyses and detailed engineering studies.

- **Do no harm to ongoing defense and intelligence space programs of record.** Changes to national security space organization and management risk disrupting the execution of on-going, authorized and appropriated programs of record and undermining essential efforts to improve the capability, affordability, and resilience of the U.S. defense and intelligence space architecture. Disruptions that introduce program, budget, or requirements instability would create inefficiencies that result in greater program risks, schedule delays, and cost growth and hence would be detrimental to the national security space enterprise. While implementing changes to on-going programs in order to address major foreign threat developments may be necessary in certain instances, it is essential that the Administration and Congress do no harm to defense and intelligence space programs of record and seek to maintain the stability essential for the timely delivery of defense and intelligence capabilities to warfighter and intelligence consumers.

Government-Industry Partnerships

- **Establish and nurture government-industry partnerships.** Adversarial “us versus them” relationships rarely turn out well and must be avoided. The most innovative and successful U.S. defense and intelligence space programs were a product of close working relationships between Government officials and contractor teams. U.S. government program officials should work with the contractors, not against them. Government managers and contractors need to work as a team.
- **Expand threat information-sharing with national security space industry partners.** The U.S. national security space industry would benefit from expanded information sharing with key Federal departments and agencies. Such enhanced information sharing could include wider dissemination of classified information on threats to U.S. national security space systems (such as kinetic and non-kinetic threats to U.S. space systems as well as cyber, supply chain, and other threats to systems under development), among other topics. With enhanced understanding of current and projected threats, U.S. industry partners can take prudent steps to improve program security and enhance the resilience of national security space systems and architectures. Organizations such as the National Security Space Association can play an important role in helping facilitate such information sharing between Government institutions and industry.
- **Cultivate a robust, diverse national security space industrial enterprise.** As a collective national security space community, it is our responsibility to constantly innovate to generate and maintain decisive advantages over our adversaries. Such innovation occurs daily in traditional as well as new space companies. Therefore, defense and intelligence space officials should seek to incentivize innovation, open doors to new entrants, use competition where and when appropriate, and choose the “best athlete” from among qualified traditional and non-traditional suppliers.



Improve Intelligence Collection and Analysis and Expand Public Awareness of Foreign Space Threats

- **Improve intelligence collection and analysis of foreign space and counterspace threats.** Policy makers and military commanders must have a clear-eyed view of the challenges posed by foreign space competitors, especially China and Russia. This requires additional targeted investments to improve intelligence collection and analysis of foreign space and counterspace threats. The IC must assure timely indications and warning of threats to U.S. national interests in space, provide effective support to homeland security and defense and intelligence space operations, deliver insightful analysis of foreign space capabilities and intentions, and support national security space acquisition activities.
- **Need for a sustained public awareness campaign.** National leaders, including defense and intelligence space officials, can and should play an important role in helping educate the American people about the vital importance of space to U.S. national security and economic competitiveness as well as the dangers posed by growing foreign threats to U.S. space systems. The National Security Space Association stands ready to assist in efforts to promote such a sustained awareness campaign.

