

The United States faces an unprecedented challenge from foreign adversaries—one that is helping accelerate innovation, shore up our industrial base and strengthen our ties with our allies. The following policy recommendations outline a nine-issue framework to address this challenge.

Through advocacy and education efforts, articulate the critical importance of our nation's space-based assets to enhance our economic prosperity and national security.

Space-based assets have brought prosperity to America, driven innovation, and provided business opportunities, and greatly improved quality of life throughout the world. From the local farmer to the "smart" revolution to the entire transportation industry, our utilization of space-based assets has transformed our nation economically. On the national security front, our military's reliance on space-based assets has contributed to our dominance on the battlefield but that dominance is being challenged.

2 Support U.S. engagement with the international space community to drive cooperation and market opportunities.

The Space Enterprise Council will continue to be a leader in advocating for stronger international space cooperation. We work to help solidify international partnerships (government and private) and participate in joint policy initiatives. The Council has strongly promoted U.S.-Brazil cooperation, including a trade mission and collaboration with USG (White House, Department of State, and Department of Commerce) to streamline a Technology Safeguards Agreement. The Council was officially named the USG lead for the U.S.-Brazil Defense Industry Dialogue Space Working Group. In addition, the Council has established Memorandums of Understanding (MOUs) with Argentina, Australia, Brazil, Chile, Colombia, Norway, Space in Africa and Vietnam, which will help create an environment that nurtures legislative, policy and regulatory opportunities for Council members to pursue marketplace opportunities.

Promote and support national security space programs, space security and cyber space prepotency.

As the United States looks to address great power competition, it is incumbent upon our nation to offer our warfighters the most up to date, cutting edge, cyber-secure programs available. The Space Enterprise Council applauds the establishment of the U.S. Space Force and reestablishment of the U.S. Space Command as critical steps needed to protect on-orbit assets and ensure continued freedom of operation in and through space for USG and U.S. commercial systems. Through prudent and timely policy, and budgetary and technology initiatives, the Space Enterprise Council will holistically support the space-cyber ecosystem.

4 Ensure space safety and operations.

Over the past few decades, our space-based assets have driven economic growth and ensured that we've maintained the preeminent global fighting force. Those assets and the data that is transmitted from them are now considered critical infrastructure. DoD and commercial service providers plan to multiply the number of assets on orbit over the next decade. With the increased use of space, an improved active space traffic management plan, including an optimized spectrum management structure, is critical to avoid collisions with orbital debris and prevent operation interference between systems. This must become a top priority to ensure continued growth in space capabilities (civil, commercial, and national security). We support identifying an executive agent for space traffic management.

5 Encourage space, data and innovation technology convergence.

Data-driven capabilities are now integral to mission. Nowhere is this more prevalent than in space and the Internet of Things (IoT). Space is an integral location from which to deliver data securely to millions of connected devices, either as a primary mode in rural, remote and disaster-impacted areas or in a resilient/distributed mode in more populated areas. Space-enabled data will play a central role in the rollout of our 21st century national infrastructure.

The integration of emerging technology into the space systems framework is also a trend that is disrupting how our national security space ecosystem will conducts missions. Emerging technologies such as cloud computing, artificial intelligence and automation have and will continue to support our nation's most important missions.

As the space-derived data, data analytics and emerging technology stack becomes more integrated into missions, it is critical to position the Council and industry to capitalize on this digital disruption.

Encourage and support a robust deep space exploration program while ensuring a balanced NASA portfolio.

America is leading the world in bold new adventures to ensure the expansion of knowledge, economic growth and a better life for all. Deep space exploration will open new worlds of learning, technological advancement and business opportunities. NASA is building the capability to take humanity farther into the solar system than we have ever gone before. NASA's deep space program, consisting of the Space Launch System (SLS) and Orion spacecraft, is now poised to take us to the Moon and our next destination, Mars. It is essential that we move forward with our deep space exploration program under a balanced NASA portfolio that also adequately funds earth and space science, commercial cargo to the International Space Station and space technology development.

7 Promote robust research funding leading to innovation.

The U.S. government must continue to invest in the nation's future by supporting aerospace research and development (R&D). R&D has been the lifeblood that has often led to technological breakthroughs. In the past, the space industry relied on the U.S. government to fund basic research and to mature resulting technology to a level where industry could commercialize it. As industry R&D investments increase, the U.S. government should provide insights into its changing priorities to better inform industry investments. With the current fiscal environment, R&D expenditures are at great risk, directly impacting U.S. competitiveness in space.

Support policies and funding that will help harness earth observation data to drive decision-making.

Earth observation data is an integral part of weather forecasting, climate change monitoring, disaster risk and management and biodiversity monitoring. The ecosystem that keeps the data flowing includes on-orbit satellites, ground stations and data analytic toolkits. Through impactful policies and strategic funding, we want to ensure that the U.S. earth observation industrial base continues to be the global gold standard.

Promote science, technology, engineering and mathematics (STEM) education.

Education and training of students in STEM studies is essential to providing the space workforce of the future. We must ensure that the next generation is prepared to maintain and advance space capabilities and technologies. We must encourage and incentivize students to pursue STEM studies to prepare them for promising careers in space and other high technology fields.

