

The Way to What's Next

AEROSPACE INDUSTRIES ASSOCIATION SPACE PRIORITIES — 2023

The Aerospace Industries Association (AIA) is the premier advocate for America's space industry, supply chain, and workforce. Across AIA's more than 320 member companies are the suppliers, designers, manufacturers, launch providers, and operators of commercial, civil, and national security satellites and space vehicles. AIA member companies have supported exploration and national security space activities since the beginning of the Space Age. In 2022, the successes of the Artemis I mission, James Webb Space Telescope, and first-of-its-kind test to redirect an asteroid captured the hearts and minds of the world and underscored the importance of space security and exploration for our nation — and more opportunities lie on the horizon in 2023. Our members continue to drive the next space age by providing the space-based capabilities critical to ensuring American leadership in space, growing our economy, and keeping our country safe.

WE ALL BENEFIT FROM A WHOLE-OF-GOVERNMENT APPROACH TO SPACE

U.S. government and private sector investments in space programs have enabled a \$400 billion per year global economy supporting hundreds of thousands of highly skilled American workers. Space activities are essential to modern life: They extend communications to every point on Earth; underpin our digital economy with navigation and timing capabilities; enable critical weather forecasts; provide a deeper understanding of our planet, solar system, and universe; and revolutionize U.S. national security capabilities, providing America's armed forces a significant advantage.

These capabilities are accomplished across three interconnected sectors — civil space, commercial space, and national security space — requiring cross-government policies and investment.

AIA CROSS-GOVERNMENT SPACE PRIORITIES

- Ensure U.S. government policy and regulation enables U.S. space industry global leadership:
 - Leverage U.S. industry's commercial capabilities to the maximum extent practicable.
 - **Continuously assess regulations**, including licensing and export rules, to ensure a competitive U.S. regulatory environment.
 - **Strengthen the resilience of the aerospace supply chain**, including specialty manufacturers and unique components and materials critical to space systems.
 - Expand industry participation in U.S. government international dialogues and activities.
- **Invest in education and workforce development**, including the White House's space skilled technical workforce initiative, to expand the current and future space workforce.
- Leverage space capabilities across the government, recognizing space's benefits to national security, finance, agriculture, weather, communications, energy, emergency response, and science.
- **Maintain a sustainable space environment** through U.S. leadership in international standard and norm setting and through properly resourced, coordinated efforts across civil and national security agencies on space situational awareness and orbital debris mitigation and remediation.



Civil space agencies include the National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), and U.S. Geological Survey (USGS).

CIVIL SPACE SUCCESS DEPENDS ON CONTINUITY ACROSS A BALANCED PORTFOLIO

Civil space includes the exploration of space, advancing space and aeronautics technologies, and observing and understanding our solar system and home planet, including the Earth's climate and weather. Responsibilities include supporting the development of NASA's space and technology programs and their supporting infrastructures, as well as tracking government space-related science activities, such as space science, meteorology, Earth science and remote sensing at NASA, NOAA, USGS, and other agencies.

AIA CIVIL SPACE PRIORITIES

- Maintain program stability and grow investments across a balanced portfolio. Space programs require multiyear planning and stable budgets given their complexity. The James Webb Space Telescope, Artemis 1 launch, and Commercial Crew are a few examples of the historic achievements possible with program stability and investment.
- **Expand U.S. global leadership through civil space.** Maintain U.S. international leadership in low Earth orbit through the International Space Station (ISS) and expansion of the Artemis Accords, while considering existing U.S. industry capabilities and investments in negotiating partnership contributions.
- **Strengthen supply chain resilience.** NASA's programs rely on a specialized supply chain with a significant small business presence. NASA should help mitigate the outsized impacts this supply chain faces from overly burdensome government policies and workforce, inflation, and material shortage pressures.
- Ensure continuous U.S. presence in low Earth orbit (LEO) through the International Space Station (ISS) and an uninterrupted transition to future LEO platforms. With ISS operations now extended to 2030, fund and develop policies that will enable NASA's Commercial LEO Development program, and a diverse fleet of American launch vehicles for cargo and crew, ensuring U.S. leadership and a continuous U.S. human presence in LEO.
- **Continue decadal survey-based science missions across space science disciplines**, keeping the nation on the cutting edge of advancements in fundamental issues such as the search for life and understanding our universe, solar system, and Earth.
- Maintain an independent NASA Space Technology Mission Directorate (STMD) with investments in nuclear power and propulsion systems, solar electric propulsion, small satellite technologies, in-space servicing, debris removal, assembly, and manufacturing, additive manufacturing, and the Flight Opportunities Program.
- **Fund NOAA's next-generation weather systems** acquisition strategy to develop the next generation of geostationary, low Earth orbit, and solar weather satellite systems and encourage NOAA to use commercial space capabilities and services as much as possible to support these systems.
- **Continue to incubate and expand microgravity research** aboard suborbital and orbital research platforms, furthering scientific knowledge and maturing and stimulating commercial markets.
- Utilize the Suborbital Crew Program for government astronaut and researcher use in microgravity research and training.
- **Maintain an independent NASA STEM education program** to fund STEM programs across the United States and continue NASA's support of the White House skilled technical workforce effort.



The Department of Defense acquires and operates military space capabilities, including secure communications, missile warning, intelligence, positioning, navigation, timing, space domain awareness and weather. The Intelligence Community provides information on threats to national and defense decision makers. The National Reconnaissance Office (NRO) operates intelligence-collection satellites, and several agencies provide collection priorities and analysis.

NATIONAL SECURITY SPACE PROTECTS ECONOMIC PROSPERITY AND NATIONAL SECURITY

National security space includes all military and intelligence community uses of space-based capabilities.

AIA NATIONAL SECURITY SPACE PRIORITIES

- **Maintain bipartisan support and budget stability** for national security space activities, ensuring policies and investments reflect the current and growing threats to our space infrastructure.
- **Build resilient architectures** for national security space mission areas, recognizing threats to space systems and America's dependence on space. Architectures should be able to contribute during conflict, be protected and defended, have redundancy for key space mission areas, integrate new emerging commercial technologies, and be able to be rapidly reconstituted or augmented on operational timelines. Requirements and acquisition processes should be adjusted to enable architecture resiliency goals at the speed of relevance against threats.
- **Reduce over-classification** to improve the acquisition process, increase budget transparency, reduce capability delivery times, and increase information sharing including with international allies and partners, and removing duplicative classification of the same programs and architectures amongst different defense and intelligence organizations. Improve threat sharing mechanisms with space companies and operators.
- Strengthen supply chain resilience. National security space programs rely on specialized materials, technologies, and workforce, that are often sourced from small businesses. The outsized impacts this supply chain faces from government policies and market factors such as workforce, inflation, and material shortages need to be considered and mitigated against.



Commercial space requires regular interaction on a regulatory and policy basis with the Departments of Commerce and State, Federal Aviation Administration (FAA), Federal Communications Commission (FCC), and the Export-Import Bank.

A STABLE REGULATORY ENVIRONMENT ENABLES COMMERCIAL SPACE SUCCESS

Commercial space encompasses a broad set of enterprises, including companies that build satellites, launch vehicles, and ground equipment; launch and operate space vehicles and provide products or services from space.

AIA COMMERCIAL SPACE PRIORITIES

- **Continuously assess current and proposed laws, regulations, and policy**, considering the impact to the growing U.S. space industry and supply chain and on ensuring the U.S. remains a globally competitive market environment.
- **Preserve and advance spectrum for space applications.** Spectrum is a finite resource with a growing number of uses, including emerging technologies like 5G. The government should lead the way in maintaining and expanding internationally harmonized spectrum access for existing and new space applications.
- **Provide the Office of Space Commerce with adequate resources** to carry out its space situational awareness responsibilities and serve as an industry advocate within the U.S. government and internationally.
- Increase investment in FAA's commercial space operations, including launch and reentry licensing activities and the development and timely adoption of national airspace integration capabilities.
- Expand industry input and participation in U.S. government international dialogues and activities.
- **Update space nuclear system procedures** per Space Policy Directive 6 to advance space nuclear systems development and testing.
- Establish in-space mission authorization authority in a civil Executive Branch agency following the principles set forth by AIA to establish a minimally burdensome process.