AIA Commercial Space Bill Priorities
December 2023

- Authorization of Appropriations
  - Department of Commerce
    - Authorize at no less than FY24 PBR with inflation-adjusted growth in the outyears.
  - Department of Transportation
    - Authorize at no less than FY24 PBR with inflation-adjusted growth in the outyears.
    - **Congress should authorize an increase in funding for the Office of Commercial Space Transportation.** The growth of the commercial space industry has outpaced the funding level increases Congress has appropriated to the Office of Commercial Space Transportation. Congress should reaffirm its commitment to safeguarding America's leadership in commercial space launch and authorize the funding of the Office of Commercial Space Transportation at the level necessary to fulfill their launch and reentry licensing mission successfully. The FAA Authorization Act of 2018 authorized significant annual funding increases to the Office of Commercial Space Transportation to support its critical work amid a period of significant demand for its services. Since this legislation passed, annual launch and reentry operations have more than doubled and the FAA has implemented new regulations requiring significant work to transition successfully. This has put the Office of Commercial Space Transportation under considerable strain. Unfortunately, appropriations have not kept pace with the authorized levels. The upcoming reauthorization should clearly and firmly support strong funding levels, as was done in the 2018 Act.
  - National Space Council
    - Authorize at no less than FY24 PBR with inflation-adjusted growth in the outyears.
- Government Roles & Responsibilities
  - Department of Commerce
    - **Office of Space Commerce Role and Resources.** AIA supports transitioning non-military space situational awareness (SSA) responsibilities from the Department of Defense to the Department of Commerce and providing Commerce with adequate resources and authorities to perform that mission. AIA supports the Congressional appropriations to pilot these activities, the elevation of OSC within the Department, and the increase of the OSC's budget to meet these responsibilities.

- **USG Space Traffic Coordination and Management (STCM).** Space situational awareness, defined as the identification, tracking, and data sharing of space objects, is related but different from STCM, which includes the norms and standards for operating in space. A framework governing space traffic management is valuable to the future use of space and an enabler for safe space activity. AIA supports the Department of Commerce being granted the authority and resources to take a lead role in convening and facilitating multistakeholder consultations, involving input from a wide range of government, industry, academic, and other impacted stakeholders toward the development of a space traffic coordination and management framework.

- Department of Transportation
  - Continue FAA AST authorization on launch and reentry licensing and voice support for properly resourcing and staffing AST to appropriately manage their statutory authority for launch and re-entry licensing.
  - When launching on Federal Ranges, FAA licensed launches should automatically satisfy compliance requirements by virtue of obtaining Range approval. Range approval is provided for all launches, not just those with FAA licenses, and it provides the same level of safety. Requiring the FAA to accept Range approval at USSF-managed ranges in lieu of performing their own inspections, reviews, etc. would greatly reduce the FAA AST organization's workload. Comparably, obtaining an FAA license should automatically satisfy compliance with Federal Range requirements.
- National Aeronautics & Space Administration
  - AIA can provide a full list of core NASA authorization items if being contemplated in this bill. Overall, AIA supports continuing the current NASA portfolio. Supported programs can be found in AIA's most recent appropriations letter here.
  - Add role and responsibility for space sustainability technology development and interagency space sustainability technology road mapping
- Federal Communications Commission
  - Authorize existing spectrum allocation function for space systems, as appropriate.
  - Restrict the expansion of existing jurisdiction to allow a mission authorization role.
- National Space Council
  - Continue existing authorization.

- Learning Period/Moratorium
  - **Congress should address the pending expiration of the human spaceflight regulatory learning period by authorizing the initiation of a "transition period" following the principles below.**

- **Maintain FAA AST's authority to respond to serious or fatal incidents or high-risk unplanned events.** Continue FAA AST's current statutory authority under which it "may issue regulations … restricting or prohibiting design features or operating practices that … have resulted in a serious or fatal injury; or contributed to an unplanned event or series of events during a licensed or permitted commercial human space flight that posed a high risk of causing a serious or fatal injury… ." [51 USC 50905(c)(2)(C) and (D)]
- **Transition Period.** No commercial human spaceflight safety rule shall go into effect before September 30, 2028, the "Transition Period."
- **Standards Development Plan**. During the Transition Period, FAA AST shall continue working with industry through the Commercial Space Transportation Advisory Committee (COMSTAC), or subgroup thereof, to recommend the specific areas that warrant voluntary human spaceflight standards and develop a plan due September 30, 2024, to complete such standards by September 30, 2028 ("Standards Development Plan").
    - The Standards Development Plan and any comments from the COMSTAC, or subgroup thereof, shall be provided to the appropriate Committees of Jurisdiction.
    - AST shall support, through an established standards-making organization, the completion of the Standards Development Plan by September 30, 2028.
- **Relation to NASA and DoD Processes.** No future FAA rule shall impose any additional requirements on any system that has passed a flight readiness review or has been otherwise developed and/or certified under a program or contract for human spaceflight by NASA or the Department of Defense, including for non-governmental use.
- **Necessary Resources.** FAA AST shall be authorized all necessary additional resources to carry out the duties of this section while not impacting the resources necessary to support and improve the current and expected increase in launch and reentry licensing activity and other current statutory duties of the office.
- **Transition Period Rulemaking Limitation**. As stated above, no rule shall go into effect before September 30, 2028, the Transition Period. AIA member companies differ on whether FAA AST may conduct any rulemaking activities during the Transition Period.

- Mission Authorization – AIA supports the following principles below.
    - **Any mission authorization and supervision framework should be established under the following principles**.
        - **Public Review and Comment –** Given the novel and evolving nature of space activities that may require mission authorization, new processes could create

unintended consequences or disrupt incentives that have enabled U.S. leadership in these capabilities. Review and comment on any proposed framework will minimize these negative outcomes and should be required before any new process is implemented.

- **Technical Support Approach –** The framework and authorizing authority should be established and incentivized with a "technical support" approach. Submitters should be provided an individual point of contact tasked with guiding the submitter from submission to authorization. This individual should be incentivized to provide timely, transparent communication with submitters on the status of their submission and the steps required toward authorization. Submitters should be provided with a concise roadmap of the process and requirements from submission to authorization. Submissions should be able to be completed electronically, and submitters able to view the status of their submissions via electronic platform.
- **Presumption of Authorization –** Given the varied and novel nature of activities that have and may require mission authorization coupled with the U.S.'s strong interest in maintaining novel space activity innovation and leadership, submissions should be provided with the presumption of authorization in any proposed process. Under this presumption, the U.S. government would be required to justify a mission authorization denial or delay, following the additional principles below.
- **60-Day Authorization Timeline –** Similar to the NOAA Commercial Remote Sensing regime**,** the U.S. government should have no more than 60 days from submission to determine authorization. At the expiration of 60 days with no U.S. government action, the activity should be deemed authorized.
- **Under Secretary Required Timeline Waiver** – Should the U.S. government require an extension of the 60-day timeline, a limited extension should be provided (e.g., no more than 15 days) only with approval at the Under Secretary level of the authorizing Department. This reflects the importance of the 60-day timeline and ensconces that extensions should be rare.
- **Transparency** – The authorization process should be guided by transparency between the submitter and the U.S. government. Should a U.S. government agency in the interagency process have a concern with a submission, that concern should be raised as soon as identified to the submitter. This should include providing the concern, the agency raising the concern, and a point of contact to directly discuss the concern.
- **Existing Authorities** – The mission authorization process should be explicitly and appropriately tailored for its purpose to implement the Nation's obligations under Article VI of the Outer Space Treaty. The mission authorization process should not be or become duplicative of processes already established in law, including processes to carry out existing authorities for launch and reentry licensing and permitting, spectrum use licensing, and remote sensing licensing.

- **No Additional Information Required** – Submissions should not require additional information beyond what is already required under preexisting U.S. government space activity licensing processes. Across FCC, FAA, and NOAA required licensing processes, companies are required to provide a vast array of information on mission specifications and plans. This information should be sufficient to accomplish the mission authorization. If the U.S. government determines additional information is required for the authorization process, the additional information sought and its justification should be put out for public review and comment under the signature of the head of the authorizing Department.
- **Mission-Level Authorization** – Authorizations should apply to all activities reasonably assumed for the entire scope of a mission and applications not required for each mission component. For example, a satellite servicing vehicle should be authorized for the scope of servicing activities and not require individual authorizations before each servicing activity.
- **Protect Proprietary Information –** Under the NOAA remote sensing licensing process, NOAA has an obligation to keep confidential, proprietary information submitted by licensees or potential licensees. Documents considered business confidential or proprietary information may include foreign agreements and supporting documentation explicitly designated and marked as business confidential or proprietary by the applicant. The mission authorization process should contain similar safeguards for submitters or potential submitters.
- **Continued Validity of Existing and Pending Authorizations** – The U.S. government has provided mission authorization to existing and planned space operations. Additional operations may also be in the process of being considered under existing processes at the time a new framework is established. Any updated process should not impact the validity of existing mission authorizations. Moreover, submissions currently under process at the time a new process is established should not be delayed and should be allowed to continue under preexisting processes if the submitter desires.

- Space Data Integration
  - **Congress should authorize increased investment in FAA's development and adoption of space integration capabilities to limit impacts to airspace operations with increased launch cadence.** These capabilities allow for the more seamless integration of aviation and commercial space activities, minimizing airspace closures and impacts while prioritizing the safety of flights, the public and commercial space activities. Moreover:
    - To the maximum extent practicable, the FAA should leverage commercial flight data services from domestic providers to build, maintain, update and model predictive analytics for flight profile optimization in the airspace to minimize flight disruptions around launch sites. FAA should leverage ongoing work with

industry partners on Flight Profile Optimization for sustainability, safety and to minimize disruptions to enable and accelerate this effort;

- FAA should continue to use the Space Collaborative Decision-making (CDM) process as a forum for addressing concerns and further refining the factors before convening a new Advisory Rulemaking Committee (ARC);
- FAA should implement the recommendation of the FAA's 2019 Airspace Access Priorities ARC to expand ATC access to the FAA's Space Data Integrator (SDI) as soon as possible. SDI, which became operational in 2021, displays near real-time telemetry data on rocket status and location. However, these data are only available at the FAA Command Center in Warrenton, VA, meaning that even when airspace is quickly reopened, it takes additional time for this information to be manually distributed to air traffic controllers in the field, which can delay aircraft passage through reopened airspace. It is our understanding that the FAA does not intend to begin notional development work on this task until at least 2028, with completion no earlier than 2033—11 years after the ARC's recommended implementation deadline of 2022; and
- FAA should develop more precise daytime analysis of peak air traffic windows versus a default presumption toward nighttime launches.
- See AIA letter to FAA on this here.

- Regulatory Modernization
  - Launch & Reentry
    - Direct FAA AST to report to the Committee within 90 days of passage of this bill on the implementation of Part 450, including resource constraints or other barriers to implementation and considering the COMSTAC recommendations regarding Part 450 implementation.
    - Direct FAA AST to develop license application processing metrics within 90 days of passage of this bill, particularly with respect to backlog and review times. These metrics should be developed and implemented to identify performance trends, advise industry of critical areas, help set expectations/priorities, and determine areas where regulatory guidance is needed to improve processing times.
  - Bolster Commercial Spaceflight
    - **LIABILITY REGIME EXTENSION –** Congress should extend the liability insurance and financial responsibility requirements in 51 USC 50914 from 2025 to 2031 to ensure launch market certainty and prevent a disruption of operations.
    - **IN-SPACE SPECTRUM** – AIA supports directing the Commission to allocate additional non-Federal spectrum, identified by the Commission, for commercial space missions conducting rendezvous and proximity operations and on-orbit servicing, taking into consideration the frequency bands 2025-2110 MHz, 2200–2290 MHz, 5650–5925 MHz, and 8400-8490 MHz. AIA does not support additional allocations (beyond launch spectrum) in the 2360-2390 MHz band.

- **INFRASTRUCTURE IMPROVEMENT** – Support adding SEC. 682 of the House-passed FAA reauthorization to the bill. SEC. 682 INTERMODAL TRANSPORTATION INFRASTRUCTURE IMPROVEMENT PILOT PROGRAM establishes a pilot program to issue grants to operators of launch and reentry sites for projects to construct, repair, maintain, or improve transportation infrastructure and facilities at such sites.
- **DUAL MANDATE – Congress should reaffirm FAA's dual mandate to regulate and promote the U.S. space industry.** America's aerospace industry benefits from FAA's efforts to proactively engage with countries American launch providers are interested in launching from. This engagement helps those nations to understand and establish launch licensing regimes that are understandable and familiar to American launch operators resulting in a proliferation of lessons learned, and encourages these emerging space launch countries to model their system off of the FAA licensing process already familiar to American industry.
- **MISHAP INVESTIGATIONS – Congress should reaffirm the statutory authority of AST in mishap investigations and recognize the recently updated MOU between the FAA and National Transportation Safety Board (NTSB).** Given the unique characteristics and variables of space launch and reentry operations, the FAA should maintain primary authority for regulating and investigating commercial space activities under the expertise of the Office of Commercial Space Transportation. Earlier this year, the FAA and NTSB updated their Memorandum of Understanding (MOU) regarding investigations and their efforts should be recognized and supported in this reauthorization.
- **RECIPROCAL INTERNATIONAL AGREEMENTS – Congress should authorize FAA to use its Title 51 authorities to enter into reciprocal international agreements.** As the industry continues to export launch capabilities and expand into international operations, the reciprocity of foreign licenses would eliminate barriers to entry and streamline American enterprise. FAA should be instructed to implement lessons learned from their past Aircraft licensing reciprocity efforts and communicate with industry as they seek to enter into agreements with foreign countries.
- **RESPONSIVE LAUNCH – Congress should direct the FAA to develop responsive launch and reentry licenses.** The Department of Defense (DoD) and Intelligence Communities are seeking tactically responsive launch capabilities from industry. This capability may include the launch and reentry of a payload with limited advanced notice of launch location, timing, and payload type. Due to budget and staffing limitations and the current and anticipated workload, given growing demand, the FAA's current licensing process is not currently equipped to support the timeframe and cadence required. FAA licensing may be a limiting factor in providing the national security community this capability. As rapid launch and reentry demonstrations continue and this capability becomes operational, Congress should authorize the FAA to develop a responsive launch and reentry

licensing process and require the completion of any required agreements between FAA and stakeholders, including the DoD and Intelligence Community.

- **ORGANIZATIONAL STUDY** – Direct an independent study of the creation of a single government organization in a Federal Department responsible for regulation of space activities from prelaunch through disposal / safing of systems after end of mission.
- **LAUNCH SPECTRUM–- AIA supports a non-federal secondary spectrum allocation specific to commercial space launch and reentry operations within 2025-2110 MHz, 2200–2290 MHz, 2360–2395 MHz, and 5650–5925 MHz provided:**
    - There is coordination with primary Federal spectrum users and approval prior to use;
    - A third-party-led coordination process for notifying and scheduling commercial launches with Federal ranges; and
    - Special temporary authority (STA) processes remain available.
    - AIA also supports the inclusion of the frequency band 8400-8490 MHz as an identified spectrum band for non-Federal secondary allocation for commercial launch and reentry operations.
    - AIA recognizes that many current space operations, including launch and reentry, may use frequencies outside the ranges discussed here. Companies have used some of these frequencies for numerous years and made significant investments in hardware that is not easily adaptable to different frequency ranges. The current STA process should remain in place for requesting the use of frequencies not covered in this bill and, no bias be placed on operators making such requests because of this bill.
    - AIA opposes the use of spectrum auctions for the bands specified in this legislation or other launch bands to avoid anticompetitive behavior.

- Remote Sensing
    - **X-BAND** – The Aerospace Industries Association, Commercial SmallSat Spectrum Management Association, Commercial Spaceflight Federation, and Satellite Industries Association support preserving 8025 – 8400 MHz band (X-band) downlink spectrum for important and growing remote sensing satellite operations. A joint letter can be found here.
    - **RAILROAD VALLEY – Congress should affirm protection of the Railroad Valley site.** AIA and its members strongly oppose changes to the Railroad Valley site (RRV). This area is a unique critical asset to the U.S. as it is the only site in the U.S. utilized by the commercial remote sensing industry to calibrate satellite measurements and data. This calibration process is essential for Earth observing satellite systems, including systems utilized by NASA, the National Oceanic and Atmospheric Administration (NOAA), the United States Geological Survey

(USGS), and the U.S. military. U.S. remote sensing capabilities rely on this site to provide essential data for accurate weather observations and applications for severe weather, fire, pollution, public health, and land management. Alterations to the site's surface would destroy the natural characteristics necessary for these calibrations, harming our scientific pursuits, national security, and economic competitiveness. See AIA's letter here.

- Innovation and safety
  - Alternate fuels (LOX/Methane)
    - This issue is currently being worked on as part of the NDAA given its Space Force equites and no further legislative action should be needed right away assuming passage of the NDAA.
  - Orbital Debris Remediation
    - **ORBITS Act**– AIA supported the Orbits Act
    - **Debris Remediation.** AIA supports investments in debris remediation technologies by the U.S. government, including for Active Debris Removal (ADR) of U.S. government debris objects. The U.S. government should leverage U.S. commercial industry for debris remediation for U.S. government debris objects to the maximum extent possible. Prior to developing new government-operated debris remediation systems and capabilities, as a best practice, the relevant agency should perform an assessment on whether existing commercial capabilities can satisfy the new requirement and establish a preference for using 'as-a-service' commercial offerings when such assessments identify existing commercially available capabilities.
    - **Incentive-based Frameworks.** AIA supports incentive-based frameworks to promote space sustainability practices.
    - **Reduce Impact to Science.** AIA supports industry-led efforts to reduce interference and impact on ground-based optical or radio astronomy and supports further research on methods and practices to reduce and mitigate interference and the overall impact of constellations in LEO on scientific research.
    - **Orbital Debris Mitigation Standard Practices (ODMSP) Reviews.** AIA supports the regular review and update of the ODMSP and suggests implementing a required review at least once every three years. AIA supports U.S. government efforts to limit the frequency of waivers for noncompliance with the ODMSP.
  - Space Situational Awareness
    - **Office of Space Commerce Role and Resources.** AIA supports AIA supports transitioning non-military space situational awareness (SSA) responsibilities from the Department of Defense to the Department of Commerce and providing Commerce with adequate resources and authorities to perform that mission. AIA supports the Congressional appropriations to pilot these activities, the elevation of OSC within the Department, and the increase of the OSC's budget to meet these responsibilities.

- **Commercial Capabilities.** To foster continued growth and innovation in the U.S. commercial space sector, OSC should leverage commercially available SSA capabilities as much as possible while structuring licensing agreements to enable continued market growth. For services beyond those that provide a basic level of space safety, OSC should leverage commercially available capabilities to the maximum extent possible, whether through facilitated access to commercial products or through direct provision by commercial providers to operators. Market growth for commercial SSA solutions should remain a key priority for the OSC, as outlined in Space Policy Directive 3, Goal 4(c). Prior to developing new government-operated SSA systems and capabilities, as a best practice, the OSC should perform an assessment on whether existing commercial capabilities can satisfy the new requirement and establish a preference for using 'as-a-service' commercial offerings when such assessments identify existing commercially available capabilities.
- **Data Sharing.** AIA supports establishing a threshold level of data and information sharing for all spacecraft operators with appropriate safeguards to limit misuse or adversarial actions. AIA supports the broad sharing between stakeholders in government and industry of high-quality SSA data, information, and collision avoidance operational protocols. Satellite operators should consistently and transparently share operator points-of-contact, ephemerides, mission planning, status, maneuver plans, and predictive trajectory data with other operators.
- **Data Access and Investment.** Timely access to SSA data, analytics, information, and services for spacecraft operators is key to ensuring space safety. AIA supports OSC making available, free of direct user fees, SSA data, analytics, information, and services sufficient to ensure a basic level of space safety. This capability should maximize data collected by U.S. government systems and possibly other public sector sources, such as the European Union Space Surveillance and Tracking network; commercially available services, data, analytics, information, and platforms; and information provided by spacecraft operators.

LEO Commercialization

- **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.
- Direct the Office of Science and Technology Policy to study the creation of an in-space **Strategic Propellant Reserve** using lunar-derived or launched propellant. A U.S.-backed strategic reserve will ensure the continuation of America's leadership in space in a time when space has become the newest warfighting

domain and a burgeoning cislunar economy is within reach in the coming decades.

- Commercial Data Acquisition
  - **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.
- Additional Items
  - **Critical Infrastructure Designation** - "Space" should not be considered a "sector" when analyzing the critical infrastructure designation. For purposes of the critical infrastructure designation discussion, space should be considered a domain, like the ocean or airspace, rather than a sector. This is because many space-based capabilities and their enabling infrastructure are already considered within critical infrastructure sectors, such as the critical manufacturing, communications, defense industrial base, government infrastructure, and transportation systems sectors. This overlap makes it difficult to perform or discuss specific costs and benefits of a change in designation. Rather, the analysis should focus on specific space-based or space-enabled capabilities — for example, position, navigation, and timing capabilities. This focus will allow for a more specific cost-benefit analysis around the following questions. See AIA's letter here.
  - **Nuclear — Congress should affirm updated space nuclear system procedures** per Space Policy Directive 6 to advance space nuclear systems development and testing.