TECHFREEDOM
LAW FOR A DYNAMIC FUTURE

Comments of

TechFreedom

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In the Matter of

Department of Commerce,

Office of Space Commerce (OSC)

Mission Authorization Draft Concept (December 2025)

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INTRODUCTION AND SUMMARY

TechFreedom welcomes the opportunity to provide feedback to the Department of Commerce's Office of Commercial Space (OSC) on its framework to establish a "Mission Authorization" regulatory regime for innovative space activities.[1] This comes in response to President Trump's Executive Order 14335, "Enabling Competition in the Commercial Space Industry,"[2] which directs the Secretary of Commerce to develop and "propose a process for individualized mission authorizations for activities that are […] not clearly or straightforwardly governed by existing regulatory frameworks, with the goal of expediting and streamlining authorizations to enable American space competitiveness and superiority."[3] TechFreedom has long supported a light-touch regulatory regime for space activities, and applauds the fundamental structure of Commerce's framework, which closely resembles the concepts of "Mission Registration" or "Mission Certification" which we have championed.

There is a fundamental flaw in Commerce's approach, however, which we must highlight now, before this process goes any further: There is no statutory foundation upon which Commerce can actually build and implement this framework—Congress has never provided Commerce with the jurisdictional authority over outer space activities, beyond its narrow role in licensing remote sensing activities, and generally promoting the aerospace industry under its general authority. An executive order is insufficient to create an entirely new regulatory regime—that must be established by Congress.

Substantively, OSC's approach is sound, with one major caveat. Even with "firm deadlines," the approach to interagency review within the Mission Authorization framework looks suspiciously like the approach taken under the International Traffic in Arms Regulations (ITAR)[4]—truly a four-letter word to the space industry. A black-box review process without transparency, feedback, or most importantly, the right to appeal, is rife with mischief, where unelected, unaccountable bureaucrats get to pick winners and losers on the High Frontier. This approach must be avoided.

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[1] Mission Authorization, OFF. OF SPACE COM., https://space.commerce.gov/mission-authorization-e-o-14335/ (last visited Mar. 12, 2026).

[2] Proclamation No. 14335, Enabling Competition in the Commercial Space Industry, 90 Fed. Reg. 40,219 (Aug. 13, 2025), https://www.federalregister.gov/documents/2025/08/19/2025-15822/enabling-competition-in-the-commercial-space-industry.

[3] *Id.*

[4] 22 U.S.C. § 2778.

I. About TechFreedom

Founded in 2011, TechFreedom is a nonprofit think tank dedicated to promoting the progress of technology that improves the human condition. To this end, we seek to advance public policy that makes experimentation, entrepreneurship, and investment possible, and thus unleashes the ultimate resource: human ingenuity. Wherever possible, we seek to empower users to make their own choices online and elsewhere.

TechFreedom, and the undersigned author, have more than 40 years' experience in outer space law and policy. A sample of our work includes:

- Comments related to the Draft European Union Space Act to:
  - The Department of Commerce and the State Department,[5]
  - The European Union,[6]
- Comments to the National Telecommunications and Information Agency (NTIA) on the development of a National Spectrum Strategy,[7]
- Comments to the Federal Communications Commission (FCC) on:
  - Space Modernization for the 21st Century,[8]
  - National Environmental Policy Act Rules (NEPA),[9]
  - Orbital Debris,[10]
  - Regulating In-space Servicing, Assembly, and Manufacturing (ISAM),[11]

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[5] Stakeholder Feedback on the EU Space Act (Aug. 15, 2025), https://techfreedom.org/wp-content/uploads/2025/08/TechFreedom-Comments-EU-Space-Act.pdf.

[6] Regulation of the European Parliament and of the Council on the Safety, Resilience and Sustainability of Space Activities in the Union (Nov. 7, 2025), https://techfreedom.org/wp-content/uploads/2025/11/TechFreedom-Comments-to-EU-on-Draft-Space-Act-11-7-25.pdf.

[7] Development of a National Spectrum Strategy, Docket No. NTIA-2023-0003 (Apr. 17, 2023), https://techfreedom.org/wp-content/uploads/2023/04/Comment-NTIA-RFC-4-17-23.pdf.

[8] Space Modernization for the 21st Century, SB Docket No. 25-306 (Jan. 20, 2026), https://techfreedom.org/wp-content/uploads/2026/01/TechFreedom-Comments-Space-Modernization-1-20-26.pdf; *see also* Space Modernization for the 21st Century, SB Docket No. 25-306 (Oct. 20, 2025), https://techfreedom.org/wp-content/uploads/2025/10/TechFreedom-Ex-Parte-Comments-10-20-25.pdf.

[9] Modernizing the Commission's National Environmental Policy Act Rules, WT Docket No. 25-217 (Sept. 18, 2025), https://techfreedom.org/wp-content/uploads/2025/09/TechFreedom-Comments-NEPA-9-18-25.pdf.

[10] Mitigation of Orbital Debris, IB Docket Nos. 18-313 & 22-271 (June 27, 2024), https://techfreedom.org/wp-content/uploads/2024/06/TechFreedom-Orbital-Debris-Refresh-Comments-6-27-24.pdf; *See also* Mitigation of Orbital Debris Reply Comments, IB Docket Nos. 18-313 & 22-271 (July 12, 2024), https://techfreedom.org/wp-content/uploads/2024/07/TechFreedom-Orbital-Debris-Refresh-Reply-Comments-7-12-24.pdf.

[11] In-Space Servicing, Assembly, and Manufacturing (Apr. 2024), https://techfreedom.org/wp-content/uploads/2024/04/TechFreedom-FCC-ISAM-Comments.pdf.

    - Space spectrum and licensing issues,[12]
- Comments to NASA on its:
    - Low Earth Orbit Microgravity Strategy,[13]
    - Lunar Non-Interference Questionnaire,[14]
    - Technology Shortfalls,[15]
    - Moon to Mars Objectives,[16]
- Comments to the Federal Aviation Administration (FAA) on its attempt to regulate launch upper stages to minimize orbital debris,[17]
- Comments to the White House Office of Science and Technology Policy (OSTP) on the U.S. Strategy for U.S. Activities in Cislunar Space,[18]
- Testimony before the House and Senate on space issues,[19]

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[12] Revision of the Big LEO Spectrum Sharing Plan, RM-11975 (Apr. 25, 2024), https://techfreedom.org/wp-content/uploads/2024/04/TechFreedom-Comments-SpaceX-Petition-1-6-GHz.pdf; Expediting Initial Processing of Satellite and Earth Station Applications & Space Innovation, IB Docket Nos. 22-411 & 22-271 (Feb. 6, 2024), https://techfreedom.org/wp-content/uploads/2024/02/TechFreedom-Reply-Comments-Expediting-Initial-Processing-of-Satellite-and-Earth-Station-Appications-Space-Innovation-2-6-24.pdf; Revising Spectrum Sharing Rules for Non-Geostationary Orbit, Fixed-Satellite Service Systems, IB Docket No. 21-456 (Aug. 7, 2023), https://techfreedom.org/wp-content/uploads/2023/08/Satellite-Spectrum-Sharing-8-7-23-TechFreedom-Comments.pdf; Single Network Future & Space Innovation, GN Docket No. 23-65 & IB Docket No. 22-271 (May 12, 2023), https://techfreedom.org/wp-content/uploads/2023/05/TechFreedom-Comments-SCS-5-12-23.pdf.

[13] NASA's Low Earth Orbit Microgravity Strategy (Sept. 27, 2024), https://techfreedom.org/wp-content/uploads/2024/10/TechFreedom-NASA-LEO-Microgravity-Comments-9-27-24.pdf.

[14] Non-interference of Lunar Activities (June 7, 2024), https://techfreedom.org/wp-content/uploads/2024/06/TechFreedom-Non-Interference-Zones-NASA-6-7-24-v2.pdf.

[15] Technology Shortfalls for NASA Space Technology Mission Directorate (STMD) (May 13, 2024), https://techfreedom.org/wp-content/uploads/2024/05/TechFreedom-Technology-Shortfalls-for-NASA-Space-Technology-Mission-Directorate-May-13-2024.pdf.

[16] Moon to Mars Objectives (June 3, 2022), https://techfreedom.org/wp-content/uploads/2022/06/TechFreedom-Comment-Moon-to-Mars-6-3-22.pdf.

[17] Mitigation Methods for Lauch Vehicle Upper Stages on the Creation of Orbital Debris, Docket No. FAA-2023-1858 (Dec. 22, 2023), https://techfreedom.org/wp-content/uploads/2023/12/TechFreedom-comments-Mitigation-Methods-for-Launch-Vehicle-Upper-Stages-on-the-Creation-of-Orbital-Debris-12-22-23.pdf.

[18] National Science and Technology Strategy for US Activities in Cislunar Space (July 20, 2022), https://techfreedom.org/wp-content/uploads/2022/07/TechFreedom-Comment-OSTP-Cislunar-Economy-7-20-22.pdf.

[19] *Continuing US Leadership in Commercial Space at Home & Abroad: Hearing Before the H. Comm. on Space, Sci., & Tech.*, 118th Cong. (2023) (statement of James E. Dunstan), https://techfreedom.org/wp-content/uploads/2023/07/Space-Governance-Testimony-July-13-2023.pdf; *Reopening the American Frontier: Exploring How the Outer Space Treaty Will Impact American Commerce and Settlement in Space: Before the S. Comm. on Commerce, Sci., & Transp. Subcomm. on Space, Sci., & Competitiveness*, 115th Cong. (2017) (written testimony of James E. Dunstan & Berin Szóka), https://www.commerce.senate.gov/services/files/A9AD88B2-9636-4291-A5B0-38BC0FF6DA90 (for video of the hearing, *see Reopening the American Frontier: Exploring How the Outer Space Treaty Will Impact American Commerce and Settlement in Space*, S. COMM. ON COMMERCE, SCI., & TRANSP. (May 23, 2017),

- Amicus briefs in key court cases related to outer space law and policy,[20]
- Law review and scholarly articles addressing key issues of space law,[21]
- Presentations at scientific conferences on outer space law and policy, including on issues related to orbital debris,[22] and
- Submissions to Congress and the White House on key space law and policy issues.[23]

Consistent throughout our work are two overarching themes: (1) the U.S. must have a light-touch regulatory regime for space if we wish to thrive on the High Frontier; and (2) that regime must be rooted in clear statutory authority granted by Congress.

II. A Mission Authorization Structure Will Help America Lead in Space

A. Fundamental Approaches to Regulation

TechFreedom has long held that the success of America is a direct result of a society and government that values, promotes, and most importantly, *protects*, the concepts of innovation, invention, and entrepreneurship. As we approach the 250th anniversary of the

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https://www.commerce.senate.gov/2017/5/reopening-the-american-frontier-exploring-how-the-outer-space-treaty-will-impact-american-commerce-and-settlement-in-space).

[20] Brief for TechFreedom as Amicus Curiae Supporting Fed. Commc'ns Comm'n, The International Dark-Sky Association, Inc. v. Fed. Commc'ns Comm'n, No. 22-1337 (D.C. Cir. Ct. App. 2023), https://techfreedom.org/wp-content/uploads/2023/06/TF-22-1337-International-Dark-Sky-Association-Inc.-v.-FCC.pdf; Brief for TechFreedom as Amicus Curiae Supporting Respondent, Viasat, Inc. v. Fed. Commc'ns Comm'n, 47 F.4th 769 (D.C. Cir. 2022) (No. 21-1123), https://techfreedom.org/wp-content/uploads/2021/09/File-Stamped-TechFreedom-Amicus-Brief-Viasat-v-FCC.pdf.

[21] *See* James Dunstan, *Regulating Outer Space: Of Gaps, Overlaps, and Stovepipes*, THE CTR. FOR GROWTH AND OPPORTUNITY (July 10, 2023), https://www.thecgo.org/research/regulating-outer-space-of-gaps-overlaps-and-stovepipes/ (hereinafter GAPS, OVERLAPS); James E. Dunstan*, "Space Trash:" Lessons Learned (and Ignored) from Space Law and Government,* 39 J. SPACE L. 23 (2013); James E. Dunstan, *Toward a Unified Theory of Space Property Rights*, *in* SPACE: THE FREE-MARKET FRONTIER (2002); James E. Dunstan et al., *The Geostationary Orbit: Legal, Technical and Political Issues Surrounding Its Use in World Telecommunications*, 16 CASE WEST. RESERVE J. INT. L. 223 (1984).

[22] James E. Dunstan & Bob Werb, *Legal and Economics Implications of Orbital Debris Removal: Comments of the Space Frontier Foundation*, DARPA Orbital Debris Removal (ODR) Request for Information for Tactical Technology Office (TTO), DARPA-SN-09-68 (Oct. 30, 2009); James E. Dunstan et al., *Doing Business in Space: This Isn't Your Father's (or Mother's) Space Program Anymore*, SPACE MANUFACTURING 13 (2001); James E. Dunstan, *Earth To Space: I Can't Hear You; Selling Off Our Future To The Highest Bidder*, SPACE MANUFACTURING 11 (1997); James E. Dunstan, *Generating Revenues in Space: Challenging Some of the Economic Assumptions of Space Exploitation*, Proceedings of the NASA Symposium on Lunar Bases and Space Professional Activities in the 21st Century (Apr. 1988).

[23] TechFreedom, Comment on OSTP Request for Comment on National Orbital Debris Research and Development Plan, 86 Fed. Reg. 61335 (Dec. 31, 2021), https://techfreedom.org/wp-content/uploads/2022/01/TechFreedom-Comments-OSTP-Orbital-Debris-Strat-Plan.pdf; Letter from TechFreedom to S. Subcomm. on Space & Sci. (July 21, 2021), https://techfreedom.org/wp-content/uploads/2021/07/Letter-to-Senate-Space-Subcommittee-7-21-21.docx-1.pdf (concerning the loophole of allowing US companies to get "flag of convenience" licenses from foreign jurisdictions).

Declaration of Independence, we should not forget that the American founding fathers found innovation to be so important that it appears in Article I, Clause 8 of the U.S. Constitution: "[Congress shall have the power] To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

The "Patent Clause," as it is known, was so uncontroversial that it is mentioned only once in the Federalist Papers. In Federalist Paper No. 43, James Madison writes: "The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors."[24] President Washington, in the first State of the Union address (which consisted of a mere 1,096 words and was delivered in writing), said this about the need for Congress to quickly pass a comprehensive patent statute:

> The advancement of agriculture, commerce, and manufactures by all proper means will not, I trust, need recommendation; but I can not forbear intimating to you the expediency of giving effectual encouragement as well to the introduction of new and useful inventions from abroad as to the exertions of skill and genius in producing them at home, and of facilitating the intercourse between the distant parts of our country by a due attention to the post-office and post-roads.[25]

Congress responded quickly; the Patent Act of 1790 was just the third law passed by the newly formed Congress of the United States. Thus, the notion of "permissionless innovation,"[26] runs deep in the American psyche, and serves as a critical starting point when we think about how to regulate the activities of Americans in space.

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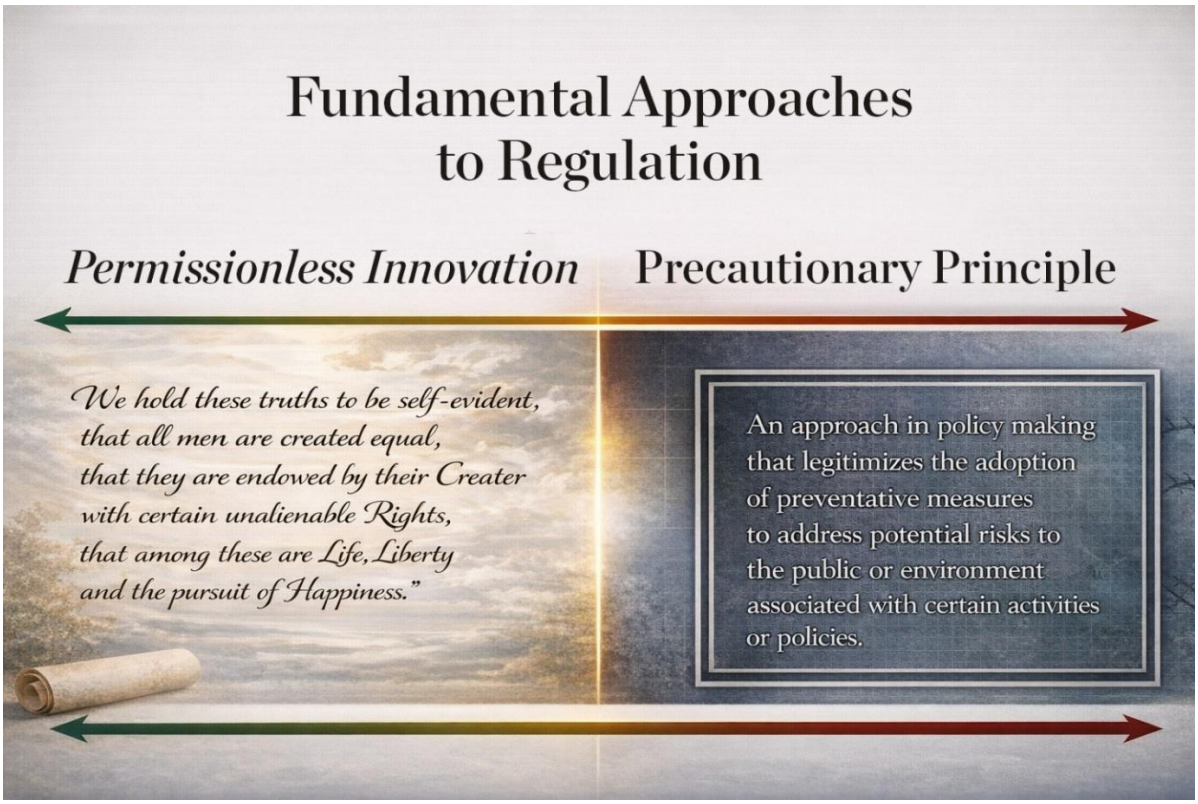
[24] THE FEDERALIST NO. 43 (James Madison).

[25] President George Washington, State of the Union Address (1790).

[26] *See* ADAM THIERER, PERMISSIONLESS INNOVATION: THE CONTINUING CASE FOR COMPREHENSIVE TECHNOLOGICAL FREEDOM (2014), https://www.amazon.com/Permissionless-Innovation-Continuing-Comprehensive-Technological/dp/0989219348.



Beginning on the regulatory continuum at permissionless innovation is in sharp contrast to the regulatory approach being implemented by the European Union, which often begins at the "Precautionary Principle" and rarely moves toward permissionless innovation.[27] We saw this approach with the General Data Protection Regulation (GDPR),[28] the Digital Markets Act (DMA),[29] and the EU is heading in the same direction when it comes to regulating space activities.[30] We pointed this out to the EU Commission in comments we filed in November 2025. "With the Draft EU Space Act, the European Commission has taken its first steps

[27] *See The Precautionary Principle*, EUR-LEX, https://eur-lex.europa.eu/EN/legal-content/summary/the-precautionary-principle.html (last visited Jan. 20, 2026).
[28] GDPR.eu, GDPR, https://gdpr-info.eu/ (last visited Jan. 20, 2026). *See also* Winfried Veil, *C.05 Precautionary Principle*, DATAPROTECTION LANDSCAPE (June 7, 2021), https://dataprotection-landscape.com/law/critique-of-data-protection/precautionary-principle ("In the GDPR, the Verbotsprinzip (i.e. precautionary principle) applies: the processing of personal data is generally prohibited unless there is a legal ground for permission.").
[29] Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828, https://eur-lex.europa.eu/eli/reg/2022/1925/oj/eng.
[30] Proposal for a Regulation of the European Parliament and of the Council on the Safety, Resilience and Sustainability of Space Activities in the Union, 2025/0335 (COD), EUR. PARL. (June 25, 2025) [hereinafter Draft EU Space Act].

toward comprehensive outer space regulation. Unfortunately, its approach embodies many more aspects of the 'precautionary principle' than of 'permissionless innovation'."[31]

Obviously, we can't have a space regime entirely devoid of regulation, that's not what "permissionless innovation" means. Instead, it means that we should impose the fewest and least burdensome regulations possible to accomplish the statutory and policy goals entrusted to government agencies when it comes to outer space operations. The further left on the continuum depicted above, the better.

B. TechFreedom Has Long Called for a Mission Authorization/Mission Registration Approach to Regulating Innovative Space Activities

In 2016, the FAA issued the first "payload review" certification for a private mission to the Moon. TechFreedom applauded the move but questioned whether the FAA had authority to regulate a payload operating on the Moon when its statutory regulatory authority remains limited to launch and reentry. We noted that a clearer regulatory regime was necessary, something not quite accomplished when Congress passed the Space Launch Competitiveness Act of 2015:[32]

> Congress needs to finish what it started last year. That means creating a clear statutory system for governing what U.S. companies do in space with the lightest regulatory touch necessary for the U.S. to fulfill its international obligations.[33]

In 2017, undersigned counsel testified before the Senate Committee on Commerce, Science, & Transportation Subcommittee on Space, Science, and Competitiveness in a hearing entitled "Reopening the American Frontier: Exploring How the Outer Space Treaty Will Impact American Commerce and Settlement in Space."[34] In our written testimony, we argued that a

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[31] TechFreedom, Comments to the European Commission on the Draft Space Act at 5 (Nov. 7, 2025), https://techfreedom.org/wp-content/uploads/2025/11/TechFreedom-Comments-to-EU-on-Draft-Space-Act-11-7-25.pdf. We went on to note: "From a strictly US perspective, this might not be a bad thing, read in a vacuum. The EU establishing overbearing regulations would actually slow, if not halt, the exodus of US aerospace companies seeking flags of convenience from friendlier jurisdictions. If adopted as proposed, few US companies would trade the patchwork quilt of US space regulation for the EU's multi-layer regulatory approach." *Id.* n. 18.

[32] U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704 (2015), https://www.congress.gov/114/plaws/publ90/PLAW-114publ90.pdf.

[33] TechFreedom, *Moon Express Reveals Need for Space Law*, MEDIUM (June 6, 2016), https://medium.com/@TechFreedom/moon-express-reveals-need-for-space-law-626ac2b69486.

[34] *Reopening the American Frontier: Hearing Before the Senate Committee on Commerce, Science, & Transportation Subcommittee on Space, Science, and Competitiveness*, 115th Cong. (2017), https://www.commerce.senate.gov/2017/5/reopening-the-american-frontier-exploring-how-the-outer-space-treaty-will-impact-american-commerce-and-settlement-in-space.

light regulatory regime was necessary, and would meet the "authorization" and "supervision" obligations under Article VI of the 1967 Outer Space Treaty.[35]

> How a country chooses to assure that its citizens do not violate these provisions is completely up to that country. Since Articles VI and VII (making countries liable for damages that are caused by their own activities or those of their nationals) place liability for any activities of citizens clearly upon the launching state, the amount of supervision a country wishes to place is, in terms of treaty interpretation, completely up to the country, depending upon the risk the country wishes to assume. Countries fearing that the activities of their citizens could result in international liability may choose to heavily "supervise" (through highly proscriptive ex ante regulation) the space activities of their citizens—up to, and including, prohibiting private space activities entirely. But countries that conclude that the benefits of innovative space activities outweigh the liability risks may consider a lighter "regulatory touch," all the way to becoming a "flag of convenience" with no supervision whatsoever. A lack of supervision is not, in and of itself, a violation of international law; it merely raises the chances that a non-governmental activity might run afoul of the OST prohibitions and that the country responsible be held liable for consequential damages because that country's citizens seek to engage in a behavior that is a per se violation of the OST, or creates a probability that those activities will interfere with the activities of another space activity resulting in harm (e.g., orbital collision or frequency interference). Congress now has the opportunity to decide where on that continuum of regulation it wishes to place the United States.[36]

We pushed back then against the so-called "Mission Authorization" framework proposed by the Obama Administration in its Section 108 Report to Congress, which suggested that there was a regulatory gap, that until filled, prohibited Americans from conducting innovative space activities.

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[35] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies art. VI, Jan. 27, 1967, RES 2222 (XXI) [hereinafter OST].

[36] *See Reopening the American Frontier: Exploring How the Outer Space Treaty Will Impact American Commerce and Settlement in Space: Before the Senate Committee on Commerce, Science, & Transportation Subcommittee on Space, Science, and Competitiveness*, 115th Cong. (2017) (written testimony of James E. Dunstan & Berin Szóka), https://www.commerce.senate.gov/services/files/a9ad88b2-9636-4291-a5b0-38bc0ff6da90; Oral Testimony of James E. Dustan before the Senate Committee on Commerce, Science, & Transportation Subcommittee on Space, Science, and Competitiveness (May 23, 2017), https://medium.com/@TechFreedom/testimony-of-jim-dunstan-before-the-senate-subcommittee-on-space-science-and-competitiveness-d1b0223878e5.

> The problem, then, is not a "regulatory gap" for current space activities, but rather a patchwork regulatory system that is complex, non-transparent, and extremely expensive to navigate. Before we start overlaying a whole new "Mission Authorization" regulatory regime on innovative space activities, we must first streamline the existing regime to reduce cost, redundancy, and most of all, opaqueness, where bureaucrats can still pick winners and losers with impunity. Cleaning up a bloated regulatory regime will provide far more clarity to the space industry than the establishment of an entirely new "black box" into which one drops applications, and crosses fingers that it won't be vetoed, without explanation, by one of several unaccountable agencies. Ideally, Congress should clean up the mess of current federal licensing at the same time that it implements any new regime to address its Article VI responsibilities.[37]

Ultimately, we argued for a Mission Registration regime:

> Instead of "Mission Authorization," we propose a minimal "Mission Registration" approach. The essential difference is where the presumption lies. We suggest allowing any U.S. entity planning to conduct a mission to register with a government entity, and provide full disclosure of the mission scenario. They would also have to demonstrate that the mission would not violate any of the OST prohibitions outlined above and defined more specifically in the enabling legislation. They would also demonstrate that the mission complies with orbital debris and space traffic management requirements through either reference to an FAA/AST, FCC, NOAA, or NASA authorization/approval, or through a separate demonstration if none of those regime apply (which is highly unlikely). An interagency review would be conducted under a strict shot-clock of 120 days; after that time, the mission would be deemed authorized, unless the lead agency issued an appealable order, consistent with the Administrative Procedure Act's "arbitrary and capricious" standard, clearly identifying the grounds on which the registration was denied. In other words, self-certification of compliance with the statute would provide a presumption of compliance—a kind of safe harbor—but that presumption could, of course, be rebutted by the agency or any private party (domestic or, ideally, foreign as well) seeking to oppose the proposed mission as inconsistent with the Treaty.[38]

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[37] *Id.*
[38] *Id.*

Similarly, in response to the U.S. House of Representative's attempt to address the so-call innovative space regulatory "gap," we stated:

> TechFreedom has helped champion the notion of a 'Mission Certification' approach instead of the more onerous and less transparent 'Mission Authorization' regime advocated by the Obama administration. The crucial difference between the two approaches is whether innovation and experimentation in space is the default, or whether it requires the government's permission.[39]

III. Unfortunately, There Is No Clear Statutory Framework Under Which Commerce Can Proceed

We wish we could just leave our comments there and support the framework proposed by Commerce, since it has much in common with our previously proposed "Mission Certification" approach (with the caveats we discuss in the next section). The problem, however, is in both our 2016 and 2017 writings, we concluded that such a framework must come from Congress, and not an executive agency. Completing the quote from above:

> Allowing [innovators] to succeed will require avoiding cumbersome regulation, and will best be done by extending basic principles of property and tort law into space—***but even that still requires legislation***. If the New Space Renaissance is to succeed, we need comprehensive property and non-interference (tort) protections, but also clear Article VI rights—the sooner, the better."[40]

In our 2017 written testimony to the Senate Space Subcommittee, we concluded:

> The next challenge is for Congress to address the so-called "regulatory gap" for innovative space activities beyond today's established satellite and launch industries—such as asteroid and lunar mining, on-orbit repair and construction, and private space habitats. . . The best way to protect American interests is for Congress to enact a regulatory framework that takes the lightest touch possible in order to satisfy our Treaty obligations while also protecting both public and private American assets—by setting precedent for

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[39] TechFreedom, *Light Touch to Space Regulation under New House Bill*, MEDIUM (June 8, 2017), https://medium.com/@TechFreedom/light-touch-to-space-regulation-under-new-house-bill-b8218521fdcd. For the purposes of this discussion, "Mission Registration" and "Mission Certification" are synonymous.

[40] *See supra* note 33 (emphasis added).

> other nations to follow in adopting their own domestic legislation that will ensure that foreign private companies also act responsibly in space.[41]

Finally, in the oral testimony undersigned counsel delivered at the 2017 Senate hearing, we said:

> Precisely because the U.S. Constitution promises me that I *can* go into space, and precisely because Article VI *isn't* self-executing, Congress is in a unique position internationally to show the world that we recognize our liability under Article VI, and our obligations to ensure that our private citizens abide by the self-executing provisions of the OST: no nuclear weapons in space, no military bases on the Moon or Celestial Bodies, and no appropriation of a Celestial Body. The United States can thus lead internationally by adopting a sensible and non-burdensome regulatory regime to ensure treaty compliance.[42]

A. The Department of Commerce Does Not Have the Statutory Authority to Create a Regulatory Regime for Innovative Space Activities

1. The Importance of Statutory Authority

In 2023, undersigned counsel undertook an exhaustive review of the statutory authority of U.S. federal agencies to regulate outer space activities in light of the Supreme Court's ruling in *West Virginia v. EPA*[43] which held that "agencies are no longer free to find a vague provision in their governing statute and use it as a launching pad to regulate."[44] As the Supreme Court clearly stated, Congress "does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not . . . hide elephants in mouseholes."[45] Moreover, now that agencies no longer enjoy *Chevron* deference after *Loper Bright*,[46] in any challenge to such regulations, "Courts must exercise their independent judgment in deciding whether an agency has acted within its statutory authority, as the APA requires."[47]

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[41] *See* Written Testimony, *supra* note 36.
[42] *See* Oral Testimony of James E. Dunstan, *supra* note 36.
[43] 142 S. Ct. 2587 (2022).
[44] *See* GAPS, OVERLAPS, *supra* note 21, 18.
[45] Whitman v. American Trucking Ass'ns, Inc., 531 U.S. 457, 468 (2001).
[46] Loper Bright Enter. v. Raimondo, 144 S.Ct. 2244, 2273 (2024) ("*Chevron* is overruled.").
[47] *Id*.

2. Congress Has Not Provided the Department of Commerce with the Necessary Statutory Authority to Create a Mission Authorization Regulatory Regime

Congress has certainly provided a role for the Department of Commerce when it comes to space activities. In the 2015 Commercial Space Launch Competitiveness Act,[48] for example, Congress directed the Office Space Commerce to act as a "coordinator" on space issues:

> 1) to foster the conditions for the economic growth and technological advancement of the United States space commerce industry;
> 2) to coordinate space commerce policy issues and actions within the Department of Commerce;
> 3) to represent the Department of Commerce in the development of United States policies and in negotiations with foreign countries to promote United States space commerce;
> 4) to promote the advancement of United States geospatial technologies related to space commerce, in cooperation with relevant interagency working groups; and
> 5) to provide support to Federal Government organizations working on Space-Based Positioning Navigation, and Timing policy, including the National Coordination Office for Space-Based Position, Navigation, and Timing.[49]

What Congress did *not* bestow on the Office of Commercial Space, however, is actual rulemaking authority to create rules such as is contemplated in the OSC's Draft Concept. The Department of Commerce admits as much in its 2022-2026 Strategic Plan for the Office of Commercial Space:

> STRATEGY 1: Coordinate regulatory functions across domestic and international stakeholders to promote competitiveness, and increase legal certainty for U.S. commercial space businesses. The Department will convene Federal, state, and international stakeholders as appropriate to identify and act on regulatory issues and opportunities for commercial space businesses with a whole-of-government approach. As commercial space activities expand into new areas and business models, the Department's Office of Space Commerce will partner with these stakeholders to coordinate regulatory functions that promote competitiveness and increase legal certainty for space

[48] U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704 (2015), https://www.congress.gov/114/ plaws/publ90/PLAW-114publ90.pdf.
[49] 51 U.S.C. § 50702(c).

businesses. Coordinated regulation will support existing space activities and ensure regulatory frameworks address emerging missions.[50]

3. NOAA's Rulemaking and Regulatory Authority Over Remote Sensing Cannot Be Expanded to Include the Promulgation of Rules Related to Innovative Space Activities

The Department of Commerce does have both rulemaking and regulatory authority over one particular space activity—remote sensing.[51] But that authority is limited, and efforts by Commerce to expand its regulatory authority beyond traditional Earth remote sensing systems have backfired. When NOAA attempted to expand its authority to license "missions to conduct remote sensing from an orbit of any celestial body,"[52] commenters pointed out that such increased authority was not supported by the language of the Act. Commerce then backtracked on this proposal:

> After considering public comments and pertinent policy considerations, this definition now applies only to (1) remote sensing conducted when in orbit of the Earth, rather than in orbit of any celestial body; and (2) to collecting data that can be processed into imagery of the surface features of the Earth. This definition is based on the definition of ''land remote sensing'' found at 51 U.S.C. 60101(4). Therefore, systems that can only produce data that cannot be processed into Earth-surface imagery are not required to obtain a license under this final rule.[53]

Given this acknowledgement of its constrained regulatory authority, it would be extremely difficult for Commerce to attempt to adopt rules to create a Mission Authorization regime for innovative space activities (not involving Earth remote sensing) without further statutory authority from Congress.

B. The Existence of an Executive Order Does Not Cure This Fundamental Defect

OSC quotes Executive Order 14335 as support for moving forward with creating its Mission Authorization Draft Concept. That EO directs the Department of Commerce to "propose a

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[50] U.S. DEP'T OF COM., 2022–2026 STRATEGIC PLAN 26, https://www.commerce.gov/sites/default/files/2022-03/DOC-Strategic Plan-2022%E2%80%932026.pdf.
[51] 51 U.S.C. §§ 60101 et seq. *See also* 15 C.F.R. Part 960 (remote sensing rules).
[52] Department of Commerce, Licensing of Private Remote Sensing Space Systems, Notice of Proposed Rulemaking, Docket No. 100903432–9396–01, 84 Fed. Reg. 21,282, 21,283 (May 14, 2019), https://www.govinfo.gov/content/pkg/FR-2019-05-14/pdf/2019 09320.pdf.
[53] Department of Commerce, Licensing of Private Remote Sensing Space Systems, Final Rule, Docket No. 200407–0101, 85 Fed. Reg. 30,790, 30,796 (May 20, 2020).

process for individualized mission authorizations for activities that are […] not clearly or straightforwardly governed by existing regulatory frameworks, with the goal of expediting and streamlining authorizations to enable American space competitiveness and superiority."[54] There are two problems with proceeding under EO 14335.

1. To "Propose a Process" Is Not the Same as Creating the Rules to Actually Implement the Process

First, it is far from clear what the EO means when it directs Commerce to "propose a process." The OSC Draft Concept certainly does that. But what the Draft Concept fails to do is take the next step, which is to "propose a process" for actually creating regulations to implement a Mission Authorization regulatory regime. The OSC Draft Concept fails to identify which agencies have sufficient statutory authority to actually promulgate rules that would create such a regime. From this glaring omission, we can only assume that Commerce believes that it has the authority to actually implement the necessary rules. As we demonstrated above, this is simply not the case. Without a thorough discussion of which agencies would have to promulgate new rules, and an analysis of their statutory authority to do so, to merely "propose a process" is a regulatory dead end.

2. Statutory Authority Cannot Be Created Through an Executive Order

More fundamentally, and potentially more dangerously (as is discussed below), OSC may be operating under the assumption that the EO itself provides the necessary authority for it to both propose and then follow through to create the Mission Authorization process. It does not. In *Youngstown Sheet & Tube Co. v. Sawyer,*[55] for example, the Supreme Court was asked to rule on the efficacy of a presidential order directing the Secretary of Commerce to take possession of, and operate, most of the nation's steel mills following a labor dispute and strike that had shut down many of the plants. In response, the Supreme Court found:

> The President's power, if any, to issue the order must stem either from an act of Congress or from the Constitution itself. There is no statute that expressly authorizes the President to take possession of property as he did here. Nor is there any act of Congress to which our attention has been directed from which such a power can fairly be implied. Indeed, we do not understand the Government to rely on statutory authorization for this seizure.[56]

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[54] *See supra* note 2.
[55] Youngstown Sheet & Tube Co. v. Sawyer, 343 U.S. 579, 585 (1952).
[56] *Id.* at 585-86.

Justice Hugo Black continued:

> The President's order does not direct that a congressional policy be executed in a manner prescribed by Congress—it directs that a presidential policy be executed in a manner prescribed by the President. The preamble of the order itself, like that of many statutes, sets out reasons why the President believes certain policies should be adopted, proclaims these policies as rules of conduct to be followed, and again, like a statute, authorizes a government official to promulgate additional rules and regulations consistent with the policy proclaimed and needed to carry that policy into execution. The power of Congress to adopt such public policies as those proclaimed by the order is beyond question. It can authorize the taking of private property for public use. It can make laws regulating the relationships between employers and employees, prescribing rules designed to settle labor disputes, and fixing wages and working conditions in certain fields of our economy. The Constitution does not subject this lawmaking power of Congress to presidential or military supervision or control.[57]

Thus here, while OSC can use its "coordination" authority to work with other agencies, the EO cannot provide it with sufficient statutory authority to actually implement the proposed Mission Authorization framework. Only Congress can provide the requisite authority.

C. Having Clear Statutory Authority Is Vital Under the Outer Space Treaty Regime

The need for Congress to provide the necessary statutory authority for a Mission Authorization regime for innovative space activities is doubly important because of the international law implications of outer space activities. As we've said repeatedly, from a legal perspective, outer space is inherently international.[58] How we regulate our citizens as they (or their machines) venture into outer space has a massive impact on our international treaty obligations. We've discussed the implications of Article VI of the OST. As we've argued before, because Article VI is not self-executing, the United States is free to interpret its obligations to authorize and supervise.[59] But that freedom comes with certain restraints.

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[57] *Id.* at 588.

[58] *Continuing US Leadership in Commercial Space at Home & Abroad,* statement of James E. Dunstan, *supra* note 19; GAPS, OVERLAPS, *supra* note 21, at 4; Comments on Stakeholder Feedback on the EU Space Act, *supra* note 5, at 10.

[59] *See* OST, *supra* note 35 ("How a country chooses to assure that its citizens do not violate these provisions is completely up to that country. Since Articles VI and VII (making countries liable for damages that are caused by their own activities or those of their nationals) place liability for any activities of citizens clearly upon the

What happens if we adopt regulations that violate our own laws and constitutional order? Consider this scenario: Commerce adopts "rules" for a Mission Authorization regime and proceeds to license a satellite servicing mission. That mission results in a collision between the servicing satellite and the target, generating orbital debris, a piece of which collides with a foreign satellite. Under the Liability Convention,[60] a launching state (assumed here to be the United States) is liable for damage caused to objects in space under a negligence theory.[61] We could foresee the foreign country (representing the interests of its foreign nationals) arguing that licensing the mission itself was negligent because the regulatory regime violated the laws of the United States. That is a risk not worth taking on the international stage.

Second, and far less hypothetical, is the impact such a questionable regulatory regime would have on discussions of international "equivalence" as we are now seeing in various domestic space laws being contemplated or enacted by other countries.[62] Under the Draft EU Space Act, for example, U.S. companies could be subject to highly onerous regulation by the EU unless the EU Commission determines that the U.S. has implemented equivalent regulations such that EU citizens are protected:

> Certain third-country jurisdictions may adhere to high levels of safety, resilience and environmental sustainability of space activities and as such apply safety, resilience and environmental sustainability requirements similar to those laid down in this Regulation.[63]
>
> In these cases, a mechanism of equivalence is to ensure the recognition of a level of protection comparable to what is required under this Regulation. Thus, where an assessment has been carried out by the Commission, in relation to the applicable legal framework of a third country and the legally binding rules applicable in that third country, deemed to be equivalent to the requirements laid down in this Regulation, the compliance of the space services providers established in that third country should be established on that basis. Such space services providers should be able to provide space-based data and space

launching state, the amount of supervision a country wishes to place is, in terms of treaty interpretation, completely up to the country, depending upon the risk the country wishes to assume.").

[60] Convention on International Liability for Damage Caused by Space Objects, art. VII, Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 13810 [hereinafter Liability Convention].

[61] *Id.*, Art. III.

[62] *See supra* note 5, §§ III, IV.

[63] *Proposal for a Regulation of the European Parliament and of the Council on the Safety, Resilience and Sustainability of Space Activities in the Union*, 2025/0335 (COD), EUR. PARL. (June 25, 2025), Finding 27.

services in the Union based on an equivalence decision to be adopted by the Commission.[64]

Will the EU grant equivalency for a Mission Authorization regime if it concludes that such a regime violates domestic U.S. law, or could be challenged domestically by U.S. companies, or internationally in the manner hypothesized above? We believe that the EU would be extremely hesitant to grant equivalency to such a Mission Authorization regulatory regime, especially since it involves, in many cases, new and untested technologies that raise significant safety risks. This could open U.S. companies to direct regulation by the EU if the company has any contacts in the EU.

Given these important international law issues, we believe that it is imperative that Congress provide clear statutory authority to the agency (or agencies) that would implement a Mission Authorization regulatory regime.

IV. The Proposed Framework Is Workable But Has Other Significant Problems

Having made our case for why OSC cannot actually implement a Mission Authorization regime, the remainder of these comments are intended to address the substance of the draft framework with the assumption that OSC will merely "coordinate" with other agencies to create the framework which ultimately Congress will need to implement.[65] Much of this discussion is framed by the framework listed on OSC's website,[66] as well as the December 2025 Stakeholder Briefing.[67]

A. We Agree that Innovative Space Activities Need a "One-Stop Shop" for Licensing

The Stakeholder Briefing summarizes the current regulatory regime for innovative space activities well: "The current system is duplicative, opaque, and provides no clear path to "yes" for non-traditional space activities."[68] Instead, the OSC framework envisions a one-stop

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[64] *Id.*, Finding 28.

[65] As demonstrated in the GAPS AND OVERLAPS paper, *supra* note 21, federal agencies, but along and together, currently lack the necessary statutory authority to regulate innovative space activities such as ISAM. *See also supra* note 11, 4 ("The problem is that these types of innovative space activities have never before been regulated by the FCC and represent activities that bear no relation to the FCC's normal area of regulatory authority and expertise: satellite communication services.").

[66] *See supra* note 1.

[67] U.S. DEP'T OF COM., OFF. OF SPACE COM., EO 14335 ON MISSION AUTHORIZATION STAKEHOLDER OVERVIEW (2025), https://space.commerce.gov/wp-content/uploads/2025/12/OSC-Mission-Authorization-Draft-Concept-Dec.-2025.pdf [hereinafter "Stakeholder Briefing"].

[68] Stakeholder Briefing, slide 4.

shop for licensing, where applications are filed with OSC.[69] Next, "OSC circulates the application and commitments to the U.S. Government interagency with firm deadlines to be notified of additional identified commitments, while conducting basic due diligence."[70] Subject to the statutory authority problem discussed above, TechFreedom agrees with this concept, especially "firm deadlines." History teaches us that without something akin to a "shot clock," getting bureaucrats to license activities that are novel are often Sisyphean endeavors to push the boulder of bureaucratic inertia up the hill.

B. Licensee Certification of Adherence to Key Principles Is Necessary

Requiring applicants to certify to key principles is a necessary process, especially because of the U.S.'s international treaty requirements under Article VI of the OST to authorize and supervise the activities of its citizens in space. Unfortunately, the current framework lacks necessary specificity as to what those key principles should be. In the Stakeholder Briefing, OSC describes the commitments applicants must make to include "fundamental national interests, including but not limited to national security, international obligations, and safety of third parties."[71] Overinclusive language such as "including but not limited to" is rife for abuse (discussed more fully below). Instead, we urge OSC to cabin, to the extent feasible, what those commitments are so as to provide the necessary regulatory clarity companies need if they are to build innovative space businesses.

TechFreedom therefore suggests the following matrix for those commitments, consistent with what we have previously proposed:

1) Commitments to abide by U.S. treaty obligations. To wit:
    a. Agreement not to claim ownership of an entire celestial body consistent with Article II of the OST, while acknowledging the ability to claim the extracted resources of a celestial body pursuant to 51 U.S.C. § 51303;[72]
    b. Agreement not to place into orbit nuclear weapons or any other kinds of weapons of mass destruction or install such weapons on celestial bodies consistent with Article IV of the OST;

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[69] *Id.*, slide 8 ("Industry applies through the OSC process and makes the relevant commitments to their planned operations.").
[70] *Id.*
[71] *Id.*, slide 8.
[72] 51 U.S.C. § 51303 ("A United States citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.").

c. Agreement not to assist in the placement of a military base, installation or fortifications or the testing of any type of weapons on a celestial body consistent with Article IV of the OST;
d. Agreement to abide by U.S. requirements related to planetary protection and contamination (both outbound and inbound) consistent with Article IX of the OST;
e. Agreement to not cause harmful interference to the space activities of others consistent with Article IX of the OST;

2) Commitments to abide by relevant orbital debris mitigation and remediation rules as well as to cooperate with the U.S. government and properly delegated private entities in matters related to space situational awareness (SSA), space traffic management (STM), and to take reasonable measures to avoid collisions when presented with timely and relevant notice of potential conjunctions;[73]
3) Commitments to not engage in activities that actively impair the national security interests of the United States as articulated in other statutes or rules.

What constitutes a "celestial body," is itself undefined under international space law, especially OST Art. VIII. In 1964, the International Institute of Space Law (IISL), which had significant input into COPUOS and the drafting of the OST, adopted the following definition of "celestial body": "Celestial bodies are natural objects in outer space, including their gas coronas, which cannot be artificially shifted from their permanent natural orbits."[74]

C. The Alternative to Mission Authorization Is Unclear

TechFreedom is confused by the statement contained in the Stakeholder Briefing that a failure of an applicant to receive a certification under the Mission Authorization framework would result in "sending applicants back through the 'traditional' regulatory process."[75] This appears to conflict directly with OSC's prior statement that "[t]he current system is duplicative, opaque, *and provides no clear path to "yes" for non-traditional space activities*."[76] One of the foundational reasons to move towards a one-stop Mission Authorization regime

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[73] *See, e.g.*, In the Matter of Space Modernization for the 21st Century, NPRM, FCC 25-69, released October 29, 2025, ¶ 64 ("We currently propose adding a rule that requires all space station licensees to share ephemeris data more broadly, which is discussed further below.").

[74] *See* Peter Garretson & Abigail Koch, *Space Policies to Ignite Space Mining*, 8 SPACE POL'Y REV. 1, 5 (May 2025), https://www.afpc.org/uploads/documents/FINAL_FINAL_The_World_Is_Not_Enough-_Space_Policies_to_Ignite_Space_Mining.pdf; *see also* E.G. Vasilevskaya, *Legal Problems of the Conquest of the Moon and Planets*, NASA TT F-15,756, 18 ("Of great interest is the following definition of a celestial body developed in 1964 by the Working Group created within the International Institute of Space Law: 'Celestial bodies are natural objects in outer space, including their gas coronas, which cannot be artificially shifted from their permanent natural orbits.'").

[75] Stakeholder Briefing, slide 8.

[76] Stakeholder Briefing, slide 4 (emphasis added).

is precisely because, as it pertains to innovative space activities, especially commercial activities outside of Earth orbit, *there is no "traditional" regulatory process*. We commented on this dating back to 2016, noting that the FAA had to "leverage" (shorthand for exceed) its existing statutory authority to grant a payload review for activities on the lunar surface.[77] Will applicants who do not receive a certification under this process be cast adrift into exactly the chaotic regulatory scrum that this process is designed to cure? Conversely, will applicants who do not believe they will receive a certification through the Mission Authorization process be tempted to try and find a singular agency that will issue some sort of authorization such as what resulted in the FAA payload review certification in 2016?

D. The End Result of an Application Must Either Be Approval or an Appealable Denial

More fundamentally, but critically, the proposed framework will fail if one of the outcomes of the process is a denial of a certification which is not appealable. This could potentially be a far worse regulatory regime than what we now have. Applicants to the FCC who are denied licenses have the right to appeal to either the agency, or to a court.[78] Similar appellate paths are available within other space regulatory agencies.[79] Nothing will deter investment in innovative space activities more than having to tell investors that the answer you may get from the Mission Authorization process is "no, not today, but see if you can find someone else to say yes." That's the opposite of regulatory clarity and given the time it would take to find another agency to even look at an application, might instantly plunge an entrepreneur into the dreaded funding "valley of death."[80]

Thus, the Mission Authorization process must have a beginning, a middle, and an end. And if that end results in "no," there must be a path for judicial review under a clear standard. Fail to provide this critical procedural right, and the framework necessarily collapses.

E. A Mission Authorization Regime Cannot Create an ITAR-Like Black Box

Finally, the interagency review process described in the draft framework sounds eerily, and nauseatingly, like the ITAR process—one of the true "four letter words" of commercial space. The International Traffic in Arms Regulations,[81] after the 1998 Strom Thurmond National

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[77] *See supra* note 33.
[78] *See* 47 U.S.C. § 402.
[79] *See* 14 C.F.R. § 413.21 (FAA/AST appeal process); 15 C.F.R. § 960.18-19 (NOAA remote sensing application denial appeal process).
[80] *How to Survive the "Valley of Death" in Funding*, STARTUP WIRED (Sept. 16, 2025), https://startupwired.com/2025/09/16/how-to-survive-the-valley-of-death-in-funding/.
[81] 22 U.S.C. § 2778.

Defense Authorization Act,[82] nearly destroyed the U.S. space industry.[83] And the process became the punishment. American commercial space companies seeking to export space technology to other countries were subject to an interagency black-box process which defied transparency, timelines, or logic. Applicants filed Technology Assistance Agreements (TAAs) or export license applications, crossed fingers, and waited. And waited. Sometimes those applications were granted; other times, they were not. Many denials came without explanation or opportunity to amend the application to cure unarticulated problems. And all denials came without the ability to appeal, to the interagency review participants, individually or in toto, or to a court. Innovative space entrepreneurs were often caught in this black box of mischief.

> Mike Gold of Bigelow Aerospace, an outspoken advocate for ITAR reform, recounted at the Washington conference one of the more infamous examples his company has encountered: a shipping platform for their Genesis spacecraft that was effectively an upside-down table, yet considered space hardware by the State Department and thus subject to the full spectrum of ITAR compliance, including guards for the platform when it was in Russia.[84]

Ultimately, the Obama administration transitioned many space technologies off the munitions list and back over to the Department of Commerce's Export Administration Regulations (EAR) in 2013,[85] potentially saving the entire commercial space industry.

But another case involving one of the most innovative space activities in history bears retelling in this context. In 1999 a group of western entrepreneurs approached Russian aerospace giant RSC Energia with a bold idea: to buy the Russian Mir space station.[86] Strapped for cash with an aging and mothballed space station, Russia had turned Mir over to its builder and operator RSC Energia. Russia and its space agency Roscosmos ultimately agreed and entered into a lease.[87] MirCorp was formed and paid for the first truly

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[82] Pub. L. No. 105-261 (1998).

[83] *See generally* Ryan Zelnio, *The effects of export control on the space industry*, SPACE REV. (Jan. 16, 2006), https://www.thespacereview.com/article/533/1; GEORGE ABBEY AND NEAL FRANCIS LANE, *The First Barrier: The Impact of Export Controls on Space Commerce*, *in* UNITED STATES SPACE POLICY: CHALLENGES AND OPPORTUNITIES GONE ASTRAY (2009), https://www.amacad.org/publication/united-states-space-policy-challenges-and-opportunities-gone-astray/section/5; SPACE FOUNDATION, ITAR AND THE U.S. SPACE INDUSTRY (2019) https://www.spacefoundation.org/reports/itar-and-the-u-s-space-industry/.

[84] Jeff Foust, *The uphill battle for export control reform*, SPACE REV. (Dec. 1, 2008), https://www.thespacereview.com/article/1259/1.

[85] National Defense Authorization Act of 2013, Pub. L. No. 112–239, 126 Stat. 1632 (2013).

[86] *See generally* JEFFREY MANBER, SELLING PEACE: INSIDE THE SOVIET CONSPIRACY THAT TRANSFORMED THE U.S. SPACE PROGRAM (2010), https://www.amazon.com/Selling-Peace-Conspiracy-Transformed-Program/dp/1926592085. Undersigned counsel served as legal counsel to MirCorp during this period.

[87] Undersigned counsel served as legal counsel to MirCorp during this period.

commercial human launch in history, Soyuz TM-30 on April 4, 2000.[88] The two cosmonauts found the station to be in good condition and still habitable. But there was a major problem—the Mir's orbit was naturally degrading over time, and Russia didn't have the money or capability to re-boost Mir's orbit. MirCorp came up with a radical solution—fly an electrodynamic tether to Mir, lower a wire toward Earth and run electricity down it to produce lift.[89] But that created a new problem—the tether was subject to ITAR. MirCorp filed an export license for the tether in mid-2000. The tether had zero military use (indeed, deploying the tether made the spacecraft it was attached to visible by the naked eye from Earth), yet the export license application sat. No amount of inquiry of the State Department yielded anything beyond silence as to why the application was mired in the interagency process. Under mounting pressure from the United State government, Russia ultimately deorbited Mir on March 23, 2001, using the remaining fuel onboard to guide a splashdown near Fiji. The export license for the tether was granted . . . on the same day that Mir hit the ocean.

That story is well known to many of the space entrepreneurs who are building the next great space age through innovative space activities. They are extremely wary of an interagency process that allows unelected, unaccountable bureaucrats to decide whether to say "yes," especially if those applications propose activities that might compete with government missions seeking congressional funding. The risk for mischief is high.

In short, a Mission Authorization regime that resembles ITAR will gain little support from the commercial space community.

V. "Legislation Could Come Later If the Process Works" Is Backwards—Congress Needs to Codify a Mission Authorization Process First

Finally, and coming full circle, the Stakeholder Briefing states: "Legislation could come later if the process works."[90] As discussed above, this is exactly backwards. It is Congress which must act first to provide the necessary statutory authority for this framework.

CONCLUSION

TechFreedom welcomes the opportunity to provide these comments and looks forward to working with OSC and other federal agencies to craft a logical and legally sustainable Mission Authorization regulatory regime for innovative space activities.

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[88] *Soyuz TM-30*, ASTRONAUTIX, http://www.astronautix.com/s/soyuztm-30.html (last visited Mar. 12, 2026).
[89] *F.I.N.D.S. to Fly Futuristic Propulsion Experiment on Mir Space Station In 2001*, SPACENEWS (Oct. 24, 2000), https://spacenews.com/finds-to-fly-futuristic-propulsion-experiment-on-mir-space-station-in-2001/.
[90] Stakeholder Briefing, slide 8.

Respectfully submitted,

_____/s/_____

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