Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Modernizing the Commission's National	)	
Environmental Policy Act Rules	)	WT Docket No. 25-217
	)	

Comments of TechFreedom

September 18, 2025

Summary

The NEPA NPRM asks whether the FCC should conclude that statutory changes and Executive Orders have now resolved the question of whether NEPA applies to outer space activities. TechFreedom has argued for many years that NEPA has *never* applied to outer space. The statutory text does not support applying NEPA extraterritorially to outer space. Congress knows how to apply U.S. statutes to outer space, and it has done so explicitly on several occasions (criminal and patent law).

The Congress that passed NEPA in 1969 was the most space-savvy Congress in history, its members having just witnessed Neil Armstrong walking on the Moon, and the Senate two years before having fully debated and ratified the seminal Outer Space Treaty (OST), which contained a strong environmental provision. If Congress had intended to apply NEPA to outer space, it merely had to include a single sentence recognizing that NEPA was intended to implement Article IX of the OST. That it did not do so is telling.

Case law further supports the conclusion that NEPA does not apply to outer space. There is a strong inference against extraterritorial application of U.S. domestic laws without express language from Congress. Courts have also recognized that foreign policy implications must be considered in determining whether to apply U.S. domestic laws outside the jurisdiction of the United States. Given the current second space race between the United States and adversaries such as China, these foreign policy concerns tilt the balance heavily toward not applying NEPA to outer space.

The 2023 NEPA Amendments only serve as an exclamation point on this long-running sonnet. In 2023, Congress added 5336e(10)(B)(vi), by which Congress *excludes* from the

definition of a “major federal action” or “MFA” “extraterritorial activities or decisions, which means agency activities or decisions with effects located entirely outside of the jurisdiction of the United States.” This dovetails with the long case law against extraterritorial application of U.S. laws, and should slam the lid shut on this issue.

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TechFreedom, pursuant to Sections 1.415 and 1.419 of the Commission's rules,[1] hereby files these Comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding, adopted by the Commission on August 14, 2025.[2] We limit these comments to the issue of whether NEPA applies to activities in outer space.[3]

I. About TechFreedom

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.

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[1] 47 C.F.R. §§ 1.415 & 1.419 (1998).

[2] Modernizing the Commission's National Environmental Policy Act Rules, WT Docket No. 25-217, 90 Fed. Reg. 40295 (proposed Aug. 19, 2025) (to be codified at 47 C.F.R. pt. 1) [hereinafter *NEPA NPRM*]. The *NEPA NPRM* was published in the Federal Register on August 19, 2025 and set the comment date for August 18, 2025, and reply comment date for October 3, 2025. These comments are timely filed.

[3] *NEPA NPRM* ¶ 33.

TechFreedom and undersigned counsel have a long history advocating for a space regulatory system that encourages innovation and entrepreneurship in outer space. We advocate for policies and regulations that align closer to "permissionless innovation" rather than the "precautionary principle"[4] when it comes to regulating innovative uses of outer space. The instant proceeding sits at the intersection of FCC regulation and space law, a place we've inhabited for decades.[5] We are uniquely suited to provide commentary in this important proceeding on this issue.

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[4] *Continuing US Leadership in Commercial Space at Home & Abroad: Hearing Before the H. Comm. on Space, Sci., & Tech.*, 118th Cong. 3-4 (2023) (statement of James E. Dunstan), https://techfreedom.org/wp-content/uploads/2023/07/Space-Governance-Testimony-July-13-2023.pdf ("Understand that I am not here advocating for Congress to overregulate space activities. Overregulation introduces levels of friction into the regulatory system that could accelerate flight overseas and play directly into the interests of our adversaries. Nor am I advocating for a totally 'hands-off' approach to space activities. The dangers to the 'commons' of outer space require us to be good stewards of the cis-lunar system. In the same way that Earth sits in the 'Goldilocks' zone of our solar system, not too close to the sun, but not too far away, Congress's task is to find a balance on the continuum between 'permissionless innovation' (where nearly anything goes), and the 'precautionary principle' (where the government must micromanage and approve every activity by US citizens in space.)").

[5] James E. Dunstan, *We need a National Space Council to chart our future in outer space*, SPACENEWS (Jan. 23, 2025), https://spacenews.com/we-need-a-national-space-council-to-chart-our-future-in-outer-space/; James E. Dunstan, *Regulating outer space after Loper Bright*, SPACENEWS (July 5, 2024), https://spacenews.com/regulating-outer-space-after-loper-bright/; TechFreedom, Comments on Space Innovation & Facilitating Capabilities for In-Space Servicing, Assembly, and Manufacturing, IB Docket Nos. 22-271 & 272 (Apr. 29, 2024), https://techfreedom.org/wp-content/uploads/2024/04/TechFreedom-FCC-ISAM-Comments.pdf; TechFreedom, Comments on Mitigation of Orbital Debris in the New Space Age & Space Innovation, 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; TechFreedom, Reply Comments on Expediting Initial Processing of Satellite and Earth Station Applications, IB Docket No. 22-411 (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; TechFreedom, Comments on Space Innovation; Facilitating Capability for In-Space Servicing, Assembly, and Manufacturing, IB Docket Nos. 22-271 & 22-272 (Oct. 31, 2022), https://techfreedom.org/wp-content/uploads/2022/10/TechFreedom-Comments-FCC-ISAM-NOI.pdf; *Artemis Accords: One Small Step for NASA, Not So Giant a Leap for Space Law*, TECHFREEDOM (May 15, 2020), https://techfreedom.org/artemis-accords-one-small-step-for-nasa-not-so-giant-a-leap-for-space-law/; *Revived*

II. NEPA Does Not Apply to Activities in Outer Space

The NEPA NPRM asks whether the 2023 Amendments to NEPA[6] make clear that NEPA does not apply to outer space:

> The amended NEPA excludes "extraterritorial activities with effects located entirely outside of the jurisdiction of the United States from the MFA definition." The Commission issues licenses under parts 5, 25, and 97 for satellite and space-based communications. Parties have alleged in some cases that satellites in orbit can create impacts on the atmosphere from launches and reentries, impacts from satellites reflecting sunlight, and orbital debris caused by increased collisions in space. We seek comment on whether the amended NEPA resolves any question as to whether some or all of these concerns are within the scope of NEPA. We propose that space-based operations be excluded from NEPA because they are "extraterritorial activities" with effects located entirely outside of the jurisdiction of the United States. We seek comment on this proposal. We ask commenters to define with specificity the "extraterritorial activities" at issue along with the "effects" that may or may not occur within the jurisdiction of the United States. Are there space-based operations that take place within U.S. jurisdiction and otherwise subject to NEPA? Are there other ways in which the statutory definition of MFA, including the associated exclusions, should inform our determinations regarding satellite and space-based communications?[7]

National Space Council Could Mean Space Policy Rethink, TECHFREEDOM (July 7, 2017), https://techfreedom.org/revived-national-space-council-mean-space-policy-rethink/; James E. Dunstan, "*Space Trash:" Lessons Learned (and Ignored) from Space Law and Government*, 39 J. OF SPACE L. 23 (2013).

[6] Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, 137 Stat. 10 (2023) (amending 42 U.S.C. § 4321 et seq.) [hereinafter *2023 NEPA Amendments*].

[7] *NEPA NPRM* ¶ 33. *See also NEPA NPRM* n. 95 ("To that end, we seek comment on whether the Commission licensing spectrum on a nationwide, non-exclusive use basis for space launches satisfies the definition of an MFA. *See generally* Allocation of Spectrum for Non-Federal Space Launch Operations, ET Docket No. 13-115, Third Report and Order, FCC 24-132 (2024). Specifically, we seek comment on whether the Commission's licensing action results in substantial control and responsibility over the launch of space vehicles or whether there is an insufficient nexus. *See* 42 U.S.C. § 4336e(10)(A). How should the Commission take into consideration the fact that other federal agencies, such as the FAA, have primary responsibility for authorizing all non-radiofrequency aspects of space launch activities? We tentatively conclude that a private or commercial space launch is not an MFA by the Commission. *See* 42 U.S.C. § 4336e(10)(B)(i)(II). We seek comment on that tentative conclusion."). *See infra* II.C for a discussion of the role of other US regulatory agencies.

A. NEPA Has *Never* Applied to Activities in Outer Space

While the NEPA NPRM asks whether the amended NEPA "resolves any question" of whether NEPA applies to outer space, we have argued for half a decade that NEPA has never applied to outer space. We've raised this issue both at the Commission,[8] with other U.S. regulatory agencies,[9] and in several briefs to the court of appeals.[10]

Twice now, FCC grants of satellite licenses have been challenged based on a claim that the Commission has failed to conduct a proper environmental review. First, in 2021 the Commission authorized SpaceX to lower the orbit of a number of its Starlink satellites.[11] Some appellants argued that the Commission erred in failing to conduct a full environmental assessment. In the SpaceX Second Modification Order, the Commission said:

> As a threshold matter, we note that it is not clear that all of the issues raised by these parties are within the scope of NEPA or related to our action in approving SpaceX's Third Modification application. We further observe that

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[8] TechFreedom, Comments on Mitigation of Orbital Debris in the New Space Age & Space Innovation, 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; TechFreedom, Comments on Expediting Initial Processing of Satellite and Earth Station Applications & Space Innovations, IB Docket Nos. 22-411 & 271 (Mar. 3, 2023), https://techfreedom.org/wp-content/uploads/2023/03/TechFreedom-Comments-Satellite-Streamlining-3-3-23.pdf.

[9] TechFreedom, Comments on Mitigation Methods for Launch 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; TechFreedom, Comments on OSTP National Orbital Debris Research and Development Plan (Dec. 31, 2021), https://techfreedom.org/wp-content/uploads/2022/01/TechFreedom-Comments-OSTP-Orbital-Debris-Strat-Plan.pdf.

[10] 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.

[11] In re Space Exploration Holdings, LLC, 36 FCC Rcd. 7995 (2021) (SpaceX Second Modification Order), *aff'd sub. nom.* Viasat v. Fed. Commc'ns Comm'n, 47 F.4th 769 (D.C. Cir. 2022).

> several of the issues presented to the Commission raise novel questions about the scope of NEPA, including whether NEPA covers sunlight as a source of "light pollution" when reflecting on a surface that is in space. We note that NEPA is a procedural statute intended to ensure that Federal agencies consider the environmental impacts of their actions in the decision-making process. We find that we do not need to evaluate and determine whether NEPA applies to the novel issues raised by Viasat and The Balance Group in order to act on SpaceX's application. Instead, for purposes of our analysis, and out of an abundance of caution, we will assume that NEPA may apply and consider the concerns raised in the record before us under the standard set forth in section 1.1307(c) of our rules.[12]

The DC Circuit affirmed the Commission's decision and rejected the NEPA violation claims, but only on standing grounds, finding that the injury Viasat alleged was purely economic and thus not covered by NEPA,[13] and that The Balance Group had failed to establish Article III standing to challenge the decision.[14]

In 2022, the FCC approved a further modification of the Starlink system for its second generation satellites, over objections that the Commission should have done a full environmental review.[15] And again, the FCC ducked the NEPA issue:

> In addressing the concerns raised, we follow the approach in the SpaceX Third Modification Order, wherein we analyzed whether the preparation of an EA would be required pursuant to our rules, without deciding the novel issue of NEPA's scope vis-à-vis space activities. We conclude that an EIS is not required in connection with this particular licensing action, and that SpaceX is not required to prepare an EA prior to our taking action in this partial grant.[16]

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[12] *Id.* ¶ 77.

[13] *Viasat v. FCC*, 47 F.4th at 780 ("We do not question that space congestion attributable to SpaceX may impose economic costs on Viasat itself. But we do not think that Viasat (or its shareholders, officers, employees, customers, suppliers, or other stakeholders) can fairly be described as having personally suffered a nuisance, aesthetic, or other environmental injury from congestion in outer space.").

[14] *Id.* at 782 ("Again, we are left with no basis to determine whether the requisite elements of standing have been met—an issue on which the Group bore the burden of proof.").

[15] FED. COMMC'NS COMM'N, 37 FCC Rcd. 14822, SPACE EXPLORATION HOLDINGS, LLC, REQUEST FOR ORBITAL DEPLOYMENT AND OPERATING AUTHORITY FOR THE SPACEX GEN2 NGSO SATELLITE SYSTEM (2022).

[16] *Id.* ¶ 103.

This time, a group called The International Dark-Sky Association appealed to the DC Circuit.[17] Oral argument was held on December 11, 2023,[18] and several of the judges questioned counsel as to the fundamental question of the applicability of NEPA to outer space. The court ruled in favor of the FCC, but again, failed to reach the substantive issue, ruling only that the appellants had failed to present sufficient evidence for the FCC to conclude that SpaceX's application presented a "significant environmental impact" under NEPA.[19]

In both cases, TechFreedom filed amicus briefs urging the DC Circuit to rule that NEPA does not apply to outer space.[20] Finally, in this proceeding, the Commission can firmly declare that NEPA indeed does not apply to its satellite license application reviews. To do otherwise will invite continued protracted litigation on this issue. Weaponizing NEPA has become a tool of both competitors and those seeking to slow down or stop innovative uses of space. Now is the time to shelve this weapon for good.[21]

1. Statutes Are Presumed Not to Apply Extraterritorially

"It is a longstanding principle of American law that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the

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[17] Int'l Dark-Sky Ass'n, Inc. v. Fed. Commc'ns Comm'n, 106 F.4th 1206 (D.C. Cir. 2024).

[18] Oral Argument, Int'l Dark-Sky Ass'n, Inc. v. Fed. Commc'ns Comm'n, No. 22-1337 106 F.4th 1206 (D.C. Cir. Ct. App. 2024), https://www.courtlistener.com/audio/89415/international-dark-sky-association-inc-v-fcc/?.

[19] 106 F.4th 1206, 1218 (D.C. Cir. 2024).

[20] *See supra* note 10.

[21] Much of the remainder of this section comes from our briefs in *Viasat v. FCC* and *The International Dark-Sky International v. FCC*. The undersigned wishes to acknowledge the work done by my colleague Corbin Barthold on those briefs.

United States."[22] A court is to "presume," in other words, "that statutes do not apply extraterritorially."[23] What this means, in concrete terms, is that "absent *clearly expressed* congressional intent to the contrary, federal laws will be construed to have only domestic application."[24] Any "lingering doubt" should be "resolved" against extraterritoriality.[25]

To understand just how "clearly expressed" the "congressional intent" in favor of extraterritoriality must be, consider *Argentine Republic v. Amerada Hess Shipping.*[26] The statute at issue there said it applied in "territory and waters, continental and insular, subject to the jurisdiction of the United States."[27] *Amerada Hess* holds that this language does not encompass the high seas, even though the high seas are "waters" potentially "subject to the jurisdiction of the United States."[28] "When it desires to do so," *Amerada Hess* concludes, "Congress knows how to place the high seas within the jurisdictional reach of a statute."[29]

That's the bar for a "clearly expressed" congressional intent about extraterritoriality. And just as Congress knows how to address the "high seas" when it wants to, Congress knows how to address "space" when it wants to. After all, U.S. law extends American criminal-law jurisdiction to American-registered vehicles "used or designed for flight or navigation in

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[22] Equal Employment Opportunity Comm'n v. Arabian Am. Oil Co., 499 U.S. 244, 248 (1991).

[23] Hernandez v. Mesa, 140 S. Ct. 735, 747 (2020).

[24] RJR Nabisco, Inc. v. Euro. Cmty., 136 S. Ct. 2090, 2100 (2016) (emphasis added).

[25] Smith v. United States, 507 U.S. 197, 203-04 (1993).

[26] 488 U.S. 428 (1989).

[27] *Id*. at 440.

[28] *Id*.

[29] *Id*. The decision then cites laws that explicitly use the words "high seas." *Id*. at 440 n.7.

space."[30] Congress has extended U.S. patent law to outer space.[31] To apply in outer space, NEPA would need to look like these laws. It would need to refer to space explicitly. *Amerada Hess* demands as much.

2. NEPA Does Not Overcome the Presumption Against Extraterritoriality

Of course, NEPA says nothing like that. On the contrary, its text, even before it was amended in 2023, suggests at every turn that the statute is a distinctly terrestrial and domestic territorial one. Extratextual factors, meanwhile, show that NEPA does not even apply abroad, let alone in outer space. The case law confirms it.

a. NEPA's Text Does Not Support Applying It to Outer Space

Congress never "clearly expressed" an intent that NEPA apply abroad, which now has been clarified by the 2023 NEPA Amendments. Prior to those amendments, "the intention of the NEPA Congress" was "obscure."[32] "Although the language of NEPA indicates that Congress was concerned with the global environment and the worldwide character of environmental problems, it does not explicitly provide that its requirements are to apply extraterritorially."[33] The bottom line is that "nothing in NEPA's language suggests Congress intended NEPA to apply outside United States territory."[34] And if NEPA says "nothing" about

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[30] 18 U.S.C. § 7(6).

[31] 35 U.S.C. § 105(a) ("Any invention made, used or sold in outer space on a space object or component thereof under the jurisdiction or control of the United States shall be considered to be made, used or sold within the United States for the purposes of this title.").

[32] Nat'l Res. Def. Council v. Nuclear Reg. Comm'n, 647 F.2d 1345, 1367 (D.C. Cir. 1981) (Wilkey, J., solo opinion for the court).

[33] Greenpeace USA v. Stone, 748 F. Supp. 749 (D. Haw. 1990); *see also* 42 U.S.C. § 4332(2)(F).

[34] Consejo de Desarrollo Economico de Mexicali, AC v. United States, 438 F. Supp. 2d 1207, 1234 (D. Nev. 2006).

applying "outside United States territory," all the more does it say nothing about applying in outer space.

b. Congress Understood the Unique Nature of Outer Space in 1969

The absence of any explicit statutory reference to outer space is especially telling given when NEPA was passed. President Nixon signed NEPA into law on January 1, 1970, almost a decade after the United States first launched a person into orbit, and just a few months after the Apollo 11 Moon landing. At no time in American history has Congress been more aware of outer space. Congress debated NEPA just two years after the Senate ratified the Outer Space Treaty.[35] So important was that treaty that President Johnson coaxed a sitting Supreme Court justice, Arthur Goldberg, into retiring from the bench to negotiate it.[36] Clearly Congress was aware of advances in space, and it could easily have expressed a desire for NEPA to apply there.

What Congress could have done with NEPA is particularly instructive. It could have used that legislative opportunity, just two years after U.S. ratification of the OST, to domestically execute the general non-contamination provision of Article IX of the OST.[37] It

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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. IX, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter OST].

[36] *See* WALTER A. MCDOUGALL, ...THE HEAVENS AND THE EARTH: A POLITICAL HISTORY OF THE SPACE AGE 415-18 (1985).

[37] OST art. IX ("States Parties to the Treaty shall pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose.").

would have been quite simple for Congress to cite to the OST in NEPA and declare that it should apply to U.S. exploration and use of space. Yet it didn't.

If anything, NEPA is emphatic that it does *not* apply in space. It tells the federal government to take a "systemic" approach to making decisions that "may have an impact on *man's environment*."[38] It requires that reports be prepared on the impact of "major Federal actions significantly affecting the quality of the *human environment*."[39] And it says that one of its purposes is to protect "the environment and biosphere."[40] And while it may be true that the Earth and its orbital space share a connection, physics dictates that all of the solar system is connected via the gravitational forces that interplay between the sun and the planets, effectively putting all of outer space within the control of the U.S. government. Space, though, is not part of the biosphere—i.e., the places on Earth that can sustain life.[41] NEPA must be given a constrained territorial scope—not one expanded by inventive inferences.

Note, too, that NEPA talks of coordination specifically among "Federal, State, and local agencies."[42] The failure to mention coordination with foreign governments or international agencies is a clear sign that NEPA does not apply abroad, let alone in space.[43] If "waters" could not encompass the high seas in *Amerada Hess*, "human environment" surely cannot encompass satellite orbits.

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[38] 42 U.S.C. § 4332(2)(A) (emphasis added).

[39] *Id*. § 4332(2)(C) (emphasis added).

[40] *Id*. § 4331.

[41] *See Biosphere*, NATIONAL GEOGRAPHIC: EDUCATION (Oct. 19, 2023), https://education.nationalgeographic.org/resource/biosphere/.

[42] *Id*. § 4332(2)(C)(v).

[43] *See* Consejo de Desarrollo Economico de Mexicali, AC v. United States, 438 F. Supp. 2d 1207, 1234 (D. Nev. 2006).

c. Other Factors Support the Argument That NEPA Does Not Apply to Space

Even if Congress generally wants a statute to apply abroad, there are at least two ways that that desire can be thwarted, or paused, in individual instances. One arises when Congress lacks control over the place where a party seeks to apply federal law. The other arises when American foreign policy is at play. If either of these factors is present, a court is not to apply our law abroad. Both are present here.

d. Lack of Congressional Control of the "Territory" of Outer Space

"United States law governs domestically but does not rule the world."[44] "In a case of doubt," therefore, a statute should be construed "as intended to be confined in its operation and effect to the territorial limits over which the lawmaker has general and legitimate power."[45] American law, in other words, should be presumed to apply only where America is sovereign. The United States does not possess sovereignty over outer space. Other nations are free to enter and operate there, including in ways our nation doesn't approve of. Indeed, productive space projects that we try to block are likely to occur, sooner or later, with some other country's blessing.[46]

In matters of environmental law, America lacks control over space as a matter of fact; it has actively disclaimed such control as a matter of international law. Several treaties fill the space (as it were). The main such authority is the Outer Space Treaty, which 117

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[44] Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 454 (2007).

[45] N.Y. Cent. R.R. Co. v. Chisholm, 268 U.S. 29, 31-32 (1925).

[46] James E. Dunstan, *Who wants to step up to a $10 billion risk?*, SPACENEWS (June 25, 2021), https://spacenews.com/op-ed-who-wants-to-step-up-to-a-10-billion-risk/.

countries have joined.[47] "Outer space," the treaty says, "is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."[48] By commanding that outer space remain sovereignless, the treaty confirms that Congress lacks legislative control there.

It is true that, under the Outer Space Treaty, nations "retain jurisdiction and control" over the objects and persons they send into space.[49] This is not the same, however, as having control over a territory for the purpose of analyzing whether a statute applies to outer space. Congress doubtless can regulate American ships; that does not mean it controls the high seas.[50] The Antarctic Treaty says that visitors to that continent remain "subject to the jurisdiction" of their respective nations;[51] that does not mean Congress controls Antarctica.[52] The ultimate question is whether Congress is *sovereign* in space. Because it isn't—as other articles of the Outer Space Treaty confirm—NEPA, to apply in space, would have to say in the clearest possible terms that it does so. As we've seen, NEPA does no such thing.[53]

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[47] OST.

[48] OST art. II.

[49] OST art. VIII.

[50] *See* Basel Action Network v. Maritime Admin., 370 F. Supp. 2d 57, 72 (D.D.C. 2005).

[51] Antarctic Treaty art. VIII, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

[52] Smith v. United States, 507 U.S. 197 (1993).

[53] That is not to say that space is without rules. A nation that joins the Outer Space Treaty is liable to other treaty-joining nations for launching, or hosting a launch, into space of an object that causes damage to any of those other nations. OST art. VII. Indeed, this principle of responsibility for one's own launches has a treaty unto itself—the Liability Convention. Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1971, 24 U.S.T. 2389, 961 U.N.T.S. 13810. Under the Liability Convention, a treaty nation is absolutely liable to another treaty nation for the damage caused, by one of its space objects, to people or property on Earth or in the air. *Id.* arts. I, II. Liability among treaty-joining nations for collisions in space, meanwhile, is to be resolved according to fault. *Id*. art. III. Finally, to help ensure that these rules can be enforced, a third agreement, the

e. Foreign Policy Considerations

Among its other important functions, the presumption against extraterritoriality helps "ensure that the Judiciary does not erroneously adopt an interpretation of U.S. law that carries foreign policy consequences not clearly intended by the political branches."[54] The "foreign policy consequences" that Congress was willing to generate in passing NEPA are anything but "clear."[55] It could be said, in fact, that to apply NEPA abroad is almost always to walk into a foreign-policy minefield. Consider Judge Wilkey's opinion in *NRDC v. Nuclear Regulatory Commission*.[56] At issue was whether NEPA applied to the export of nuclear materials from the United States to the Philippines. Although Congress is doubtless concerned about the environment, observed Judge Wilkey, it also has other, counterbalancing interests, among them a "desire to enable American businesses and consequently the American economy to reap the benefits of sales of nuclear reactors and nuclear components."[57] And the flipside of Congress's desire to enable the sale of nuclear material abroad, of course, is foreign countries' desire to buy that material. Are our nation's courts to tell those countries how to balance the needs of the environment with their need for energy? No, this Court said. "Other cultures, other countries at diverse stages of development," Judge Wilkey wrote, "will react in their own way" to the "global problem" of

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Registration Convention, requires signatory nations to record the objects they launch into space with an international tracking registry. Convention on Registration of Objects Launched into Outer Space, Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15.

[54] Hernandez v. Mesa, 589 U.S. 93, 110 (2020).

[55] *Id*.

[56] 647 F.2d 1345 (D.C. Cir. 1981)

[57] 647 F.2d at 1373 (discussing the Nuclear Non-Proliferation Act of 1978, 22 U.S.C. § 3201, *et seq*.).

environmental protection.[58] The plaintiffs before him were not entitled to "presume that they can represent the Philippine environment" by imposing NEPA abroad.[59]

The foreign-policy implications of forcing FCC applicants for satellite facilities to undergo onerous NEPA reviews cannot be overstated. Current national space policy directs the federal government to "promote the export of United States commercial space goods and services . . . for use in international markets."[60] This policy was strengthened just last month, where the President declared:

> It is the policy of the United States to enhance American greatness in space by enabling a competitive launch marketplace and substantially increasing commercial space launch cadence and novel space activities by 2030. To accomplish this, the Federal Government will streamline commercial license and permit approvals for United States-based operators.[61]

U.S.-licensed companies can lead the way in both space launch and "novel space activities" vis-à-vis foreign competitors and adversaries such as China. To hamstring American companies by apply NEPA to outer space undermines these critical foreign policy interests.[62]

Congress presumably wants the foreign-policy benefits of American-provided launch services and satellite broadband. It presumably doesn't want to cede those benefits to another nation, such as China.[63] And it presumably doesn't want private parties meddling in

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[58] *Id*. at 1367.

[59] *Id*.

[60] NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA 1, 22 (Dec. 9, 2020), https://spp.fas.org/eprint/nsp-2020.pdf.

[61] Enabling Competition In The Commercial Space Industry, Exec. Order No. 14,335, 90 Fed. Reg. 40219 (Aug. 13, 2025), https://www.whitehouse.gov/presidential-actions/2025/08/enabling-competition-in-the-commercial-space-industry/.

[62] *See* Andrew Jones, *China establishes company to build satellite broadband megaconstellation*, SPACENEWS (May 26, 2021), https://spacenews.com/china-establishes-company-to-build-satellite-broadband-megaconstellation/.

[63] *See* Namrata Goswami, *How China Is Transforming Space Power*, THE DIPLOMAT (Sept. 12, 2025), https://thediplomat.com/2025/09/how-china-is-transforming-space-power/.

these foreign-policy issues by claiming to "represent" other countries' "environment."[64] Nothing in NEPA unsettles any of these presumptions. And the presumptions hold even though satellite launches can conceivably create ancillary costs (*e.g.*, a small chance of falling debris) back on Earth. There is no sign in NEPA that Congress would want the mitigation of those costs to be prioritized over the acquisition of the benefits, in soft power and international good will, that could come from an American company's providing Internet to remote and poverty-stricken regions around the world.

f. Extensive Case Law Supports the Argument That NEPA Does Not Apply to Outer Space

The case law, on the whole, confirms that NEPA should not apply extraterritorially, let alone in outer space.[65] Three points about these cases are worth emphasizing. First, domestic conduct or decision making does not necessarily trigger extraterritorial application of NEPA. In *Basel Action Network*, for example, the ships were launched from

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[64] Nat. Resources Def. Council, Inc. v. Nuclear Reg. Comm'n, 647 F.2d 1345, 1367 (D.C. Cir. 1981).

[65] *See, e.g.*, Mayaguezanos por la Salud y el Ambiente v. United States, 198 F.3d 297, 300 (1st Cir. 1999) (court "skeptical" of extraterritorial application of NEPA to uranium sale to Japan, although case decided on other grounds); Consejo de Desarrollo Economico de Mexicali, AC v. United States, 438 F. Supp. 2d 1207, 1235 (D. Nev. 2006) (NEPA does not apply to extraterritorial impacts of government's work on a canal-lining project at the U.S.-Mexico border); Dep't of Transp. v. Public Citizen, 541 U.S. 752, 769 (2004)(similar); *Basel Action Network*, 370 F. Supp. 2d 57 (NEPA did not apply to the transport of decommissioned military vessels from Virginia to a shipbreaker in the United Kingdom); NEPA Coalition of Japan v. Aspin, 837 F. Supp. 466, 468 (D.D.C. 1993) (NEPA does not apply to certain military bases in Japan because of "long standing treaty arrangements" concerning those bases, plus "U.S. foreign policy interests" would "outweigh the benefits from preparing" one); *Greenpeace USA*, 748 F. Supp. 749, 760 (NEPA did not apply to the removal, by the military, of a weapons stockpile in Germany; it was necessary to "balance[e] the environmental goals of NEPA against the particular foreign policy concerns which federal action abroad necessarily entails."); Born Free USA v. Norton, 278 F. Supp. 2d 5, 20 (D.D.C. 2003), vacated as moot, No. 03-5216, 2004 WL 180263 (D.C. Cir. Jan 21, 2004) (NEPA did not apply to the transfer of elephants from Swaziland to the United States, particularly because the federal government was "not [in] a position to control whether the elephants should be removed from the[ir] herds.").

Virginia—much as most satellite systems being launched from U.S. territory—yet NEPA did not follow the ships onto the high seas. And in *NEPA Coalition of Japan* and *Consejo de Desarrollo*, decisions were made in the United States that had effects abroad, yet that did not mean NEPA applied to the foreign consequences of those domestic decisions. As discussed below, the 2023 NEPA Amendments ground these judicial interpretations in express language.

Second, these cases reinforce the point that NEPA is not to be applied abroad if doing so might cause foreign-policy problems. Just as the Germans in *Greenpeace USA* wanted the weapons stockpile out of their country, many a nation here likely wants satellite broadband in its country. If applying NEPA to outer space could delay foreign countries' receipt of the desired good, NEPA should not be applied to outer space.[66]

Third, the cases confirm that NEPA should not apply abroad when, regardless of whether it is so applied, the challenged action will happen anyway. Just as Mexico was going to use its water as it saw fit in *Consejo de Desarrollo*, and Swaziland was going to deal with its elephants as it saw fit in *Norton*, other countries are going to grant satellite licenses as they see fit. If NEPA delays the launch of broadband satellites from our shores, that will simply hasten their launch from elsewhere—a reality that confirms Congress's lack of legislative control over space.[67]

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[66] See *NRDC*, 647 F.2d 1345 (foreign-policy value of nuclear exports counts against applying NEPA to the export process); NATIONAL SPACE POLICY, *supra* note 60, at 20, 22 (confirming the foreign-policy value of exporting "commercial space goods and services").

[67] Cf. *Public Citizen*, 541 U.S. at 767 ("Where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant 'cause' of the effect. Hence, under NEPA . . . , the agency need not consider these effects in its EA[.]").

Granted, *Environmental Defense Fund, Inc. v. Massey* applied NEPA to a federal government plan to incinerate food waste in Antarctica.[68] But *Massey* is quite distinct from this issue. Antarctica, *Massey* declares, is "an area over which the United States has a great measure of legislative control."[69] As we've explained, that is not true of outer space.[70]

Massey treats NEPA as a domestic statute in part on the ground that it governs "the decisionmaking processes of federal agencies," which "take place almost exclusively in this country."[71] But as *Basel Action Network* explains, this was only one "of the four factors relied on . . . in *Massey*."[72] In declining to apply NEPA abroad, *Basel Action Network* thought it much more important that "the United States does not have legislative control over the high seas."[73] In addition, *Massey* concluded that the facts before it presented no weighty issues of

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[68] 986 F.2d 528 (D.C. Cir. 1993).

[69] *Id.* at 529.

[70] As we've also noted, it's probably not true of Antarctica, either. *Massey* is undermined by a later Supreme Court decision, *Smith*, 507 U.S. 197, in which the justices ruled that the Federal Tort Claims Act does *not* apply in Antarctica. According to *Smith*, "Antarctica is best described as 'an entire continent of disputed territory.'" 507 U.S. at 198 n.1 (quoting F.M. AUBURN, ANTARCTIC LAW AND POLITICS 1 (1982)). Countries' various "sovereign claims" to Antarctica, *Smith* notes, "have all been suspended by the terms of the Antarctic Treaty." *Id*. Much like space, therefore, Antarctica is "a sovereignless region." *Id*. at 198. Although *Massey* says that Antarctica is "frequently analogized to outer space" on its way to *applying* American law, 986 F.2d at 529, that claim only further highlights the tension between *Massey* and *Smith*. *Massey* relies for its claim on *Beattie v. United States*, 756 F.2d 91 (D.C. Cir. 1984), which *Smith* overturns. What both *Massey* and *Beattie* fail to understand is that American law cannot be applied in an exotic place simply because that place has no sovereign. As *Smith* explains, "Congress generally legislates with domestic concerns in mind." 507 U.S. at 1183 n.5; *see also NEPA Coalition of Japan*, 837 F. Supp. at 467 n.3 (distinguishing *Massey* as out of step with *Smith*); *Basel Action Network*, 370 F. Supp. 2d at 71 ("The power of *Massey* remains unclear in light of *Smith*[.]"); *Born Free USA*, 278 F. Supp. 2d at 20 n.3 (similar).

[71] 986 F.2d at 532.

[72] 370 F. Supp. 2d at 72.

[73] *Id.*; *see also* Consejo de Desarrollo Economico de Mexicali, AC v. United States, 438 F. Supp. 2d 1207, 1235-38 (D. Nev. 2006) (declining to apply NEPA abroad in a case that clearly involved domestic decisionmaking).

foreign policy.[74] In that way, too, is it distinguishable from both the Court's decision in *NRDC* (involving the export of nuclear material to the Philippines) and to whether NEPA can be weaponized to kneecap U.S. companies seeking to "export" broadband to the world. Finally, even if *Massey* were on point in every other respect, it still would not be a case about outer space. Nothing in *Massey* is pertinent to whether a statue aimed at humanity's environment and the biosphere governs off planet.

B. The 2023 Amendments to NEPA Make Even Clearer that NEPA Does Not Apply to Activities in Outer Space

The discussion above attempts to resolve the issue of the applicability of the pre-2023 NEPA using sound statutory construction arguments. The 2023 NEPA amendments slam the door shut on the issue by adding new Section 5336e(10)(B)(vi), by which Congress *excludes* from the definition of a "major federal action" or "MFA":

> extraterritorial activities or decisions, which means agency activities or decisions with effects located entirely outside of the jurisdiction of the United States;[75]

It is critical to parse the exact language of this section. Note that "effects" here is a noun, not the verb "affects." In other words, Congress has told agencies to examine where the impacts occur, and if the location is "outside the jurisdiction of the United States," then the decision is not an MFA. As discussed in Section II(A)(2)(d) above, this language is consistent with prior case precedent interpreting NEPA, specifically, *Argentine Republic v. Amerada Hess*

[74] 986 F.2d at 535.

[75] 42 U.S.C. § 4336e(10)(B)(vi).

Shipping.[76] The statute at issue there said it applied in "territory and waters, continental and insular, *subject to the jurisdiction* of the United States."[77]

Similarly, Section 5336e(10)(B)(vi) talks in terms of "decisions" made by government agencies that might effects "outside of the jurisdiction of the United States," and exclude those decisions from the definition of an MSA. This follows the case law discussed above, specifically, *Basel Action Network*,[78] *NEPA Coalition of Japan,*[79] and *Consejo de Desarrollo*.[80]

Since outer space, under international law, is not within the jurisdiction of the United States, then licensing decisions which may impact outer space do not constitute an MFA. This is true even though the United States retains jurisdiction over its nationals as they explore and use outer space and are obligated under Article VI of the OST to "authorize" and "supervise" those activities.[81]

C. Any Environmental Impacts of Space Activities On Areas Under the Jurisdiction of the United States are Better Left to Other Regulatory Agencies

To the extent that some make the argument that reentering satellites pose a danger to the atmosphere directly over the United States (a land mass that makes up less than two percent of the overall surface of the Earth),[82] that determination is best left to the Federal Aviation Administration or another agency, not the FCC, whose statutory authority over the

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[76] 488 U.S. 428 (1989).

[77] *Id*. at 440 (emphasis added).

[78] *See* Basel Action Network v. Maritime Admin., 370 F. Supp. 2d 57 (D.D.C. 2005).

[79] *See* NEPA Coalition of Japan v. Aspin, 837 F. Supp. 466, 468 (D.D.C. 1993).

[80] *See* Consejo de Desarrollo Economico de Mexicali, AC v. United States, 438 F. Supp. 2d 1207 (D. Nev. 2006).

[81] OST Art. VI.

[82] United States: Surface Area, https://ecologyprime.com/united-states-surface-area/.

space activity is limited solely to licensing the spectrum used by space vehicles and satellites.

The International Dark Sky agreed:

> International Dark-Sky argues the Commission could not rely on the FAA's assessment because the FAA did not assume responsibility for the environmental review of SpaceX's satellite license, the agency action at issue here, and the FAA was required to "assum[e] responsibility" as a precondition of the Commission's reliance. We decline to adopt this overly literal reading of the NEPA regulations. The Commission relied on the FAA's assessment only when considering the environmental impact of SpaceX's rocket launches. And the FAA in fact conducted an environmental review of those launches, pursuant to its statutory authority. See 51 U.S.C. § 50901(b)(3). The Commission's reliance on the FAA's environmental review was therefore reasonable and consistent with its regulatory requirements.[83]

The FAA is the lead federal agency when it comes to licensing launch *and reentry* of space vehicles.[84] This statutory jurisdictional hook includes primary authority to license spaceports,[85] and issue launch and reentry licenses, which includes a review of the payloads sitting on top of rockets.[86] The FCC's environmental review of satellites has always been, at most, a backstop to the FAA.[87] It is time for the FCC to acknowledge its limited role in the

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[83] Int'l Dark-Sky Ass'n, Inc. v. Fed. Commc'ns Comm'n, 106 F.4th 1206, 1220 (D.C. Cir. 2024).

[84] Commercial Space Launch Act, Pub. L. No. 98-575, 98 Stat. 3055 (1984) (codified at 49 U.S.C. § 2608 (1984)).

[85] 14 C.F.R. Pt. 420 (2025) (launch site operator license) and 14 C.F.R. Pt. 433 (2025) (reentry site operator license).

[86] 14 C.F.R. § 450.43 (2025); Payload Reviews (July 27, 2022), https://www.faa.gov/space/licenses/payload_reviews. *See also* Fed. Aviation Admin. letter to David Weil, SpaceIL (July 30, 2018), https://groundbasedspacematters.com/wp-content/uploads/2019/08/SpaceIL-Payload-Review-Determination-Letter-07_30_201812_compressed.pdf (favorable payload determination for a private lunar lander); Jeff Foust, *FAA Review a Small Step for Lunar Commercialization Efforts*, SPACENEWS (Feb. 6, 2015), https:// spacenews.com/faa-review-a-small-step-for-lunar-commercialization-efforts/ (referencing a Dec. 22, 2014, favorable payload review for a lunar habitat proposed by Bigelow Aerospace).

[87] We have previously questioned whether the FCC has ever had any statutory authority over space activities apart from licensing the spectrum used by space operators. *See* TechFreedom, Comments on Space Innovation & Facilitating Capabilities for In-Space Servicing, Assembly, and Manufacturing, IB Docket Nos. 22-271 & 272 (Apr. 29, 2024), https://techfreedom.org/wp-content/uploads/2024/04/TechFreedom-FCC-ISAM-Comments.pdf.

space regulatory ecosystem,[88] and acknowledge that NEPA does not provide it any authority to review the environmental impact of satellites. That review is better left to other agencies.

III. Conclusion

The FCC's authority to regulate outer space activities (other than as related to spectrum allocation and licensing) has always been problematic.[89] NEPA's applicability to outer space has always been problematic. The 2023 NEPA amendments resolve those problems. The Commission should not only declare that licensing spectrum for outer space is not an MFA, but should also declare that NEPA itself does not apply to outer space activities.

Respectfully submitted,

_____/s/_____
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[88] For a full analysis of how outer space activities are regulated in the United States, *see* James E. Dunstan, *Regulating Outer Space: Of Gaps, Overlaps, and Stovepipes*, THE CENTER FOR GROWTH & OPPORTUNITY (July 10, 2023), https://www.thecgo.org/research/regulating-outer-space-of-gaps-overlaps-and-stovepipes/.

[89] *See supra* note 87.