

(ORAL ARGUMENT NOT YET SCHEDULED)

No. 22-1337 (and consolidated case No. 23-1001)

**In the United States Court of Appeals
for the District of Columbia Circuit**

THE INTERNATIONAL DARK-SKY ASSOCIATION, INC.,

Appellant,

v.

FEDERAL COMMUNICATIONS COMMISSION,

Appellee,

SPACE EXPLORATION HOLDINGS, LLC,

Intervenor.

**BRIEF OF AMICUS CURIAE TECHFREEDOM
IN SUPPORT OF APPELLEE AND AFFIRMANCE**

On Appeal from the Federal Communications Commission,
IBFS File Nos. SAT-LOA-20200526-00055 and SAT-AMD-20210818.

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**CERTIFICATE AS TO PARTIES,
RULINGS, AND RELATED CASES**

Under Circuit Rule 28(a)(1), I certify:

A. Parties and *Amici*

Except for TechFreedom, all parties and *amici* are listed in Appellant International Dark-Sky Association, Inc.'s brief.

B. Ruling Under Review

The ruling at issue is referenced in the Brief for Appellant International Dark-Sky Association, Inc.

C. Related Cases

These appeals raise some of the same issues raised in *Viasat, Inc. v. FCC*, 47 F.4th 769 (D.C. Cir. 2022).

/s/ Corbin K. Barthold

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Under Federal Rules of Appellate Procedure 26.1 and 29(4)(A) and Circuit Rules 29(b) and 26.1(a), TechFreedom discloses that it is a nonprofit operation organized under Section 501(c)(3) of the Internal Revenue Code. It has no parent corporation, it issues no stock, and no publicly held corporation owns a ten-percent or greater interest in it.

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/s/ Corbin K. Barthold

**STATEMENT ON CONSENT TO FILE, AUTHORSHIP,
MONETARY CONTRIBUTIONS, AND SEPARATE BRIEFING**

Under Federal Rule of Appellate Procedure 29(a)(2) and Circuit Rule 29(b), TechFreedom files this brief with the consent of all parties.

Under Federal Rule of Appellate Procedure 29(a)(4)(E), TechFreedom states that no party's counsel authored any part of this brief. No one, apart from TechFreedom and its counsel, contributed money intended to fund the brief's preparation of submission.

Under Circuit Rule 29(d), TechFreedom states that a separate brief is necessary to provide TechFreedom's unique expertise on space law, to underscore the need for the Court to apply statutory text as written, and to ensure that the question of whether NEPA applies in outer space—an exceedingly important issue, both in this case and beyond—receives adequate briefing and attention.

/s/ Corbin K. Barthold

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GLOSSARY

FAA	Federal Aviation Administration
FCC	Federal Communications Commission
NEPA	National Environmental Policy Act
SpaceX	Space Exploration Holdings, LLC

INTEREST OF AMICUS CURIAE

TechFreedom is a nonprofit, nonpartisan think tank based in Washington, D.C. It is dedicated to promoting technological progress that improves the human condition. It seeks to advance public policy that makes experimentation, entrepreneurship, and investment possible.

Although this is an exciting time for space exploration and development, some of the most promising projects—moving heavy industry off-planet, for instance—are still years from becoming reality. By contrast, Space Exploration Holdings, LLC—better known as SpaceX—is doing immensely exciting work right now: it is using outer space to provide affordable and reliable broadband Internet to the entire planet. In the proceeding below, several commenters—including one of SpaceX’s rivals—sought, by way of creative lawyering, to erect procedural hurdles that would slow SpaceX’s progress. This appeal is thus a bellwether. Its outcome will offer a clue about the fate of other ambitious space projects. Are such projects to flourish, setting in train a virtuous cycle of growing wealth, fresh discovery, greater abundance, and new possibilities? Or are they to starve in their cradles, victims of small-mindedness, petty squabbling, and the precautionary principle?

Keen to defend technological innovation, and to ensure that humanity does not squander the opportunity of outer space, TechFreedom frequently offers expert commentary on space-related issues. See, e.g., Comments of TechFreedom, *In re Expediting Initial Processing of Satellite and Earth Station Applications*, FCC IB Dkt. Nos. 22-271, 22-411 (Mar. 3, 2023); Comments of TechFreedom, *In re Space Innovation; Facilitating Capability for In-Space Servicing, Assembly, and Manufacturing*, FCC IB Dkt. Nos. 22-271, 22-272 (Oct. 31, 2022). We submit this brief to help ensure that rent-seeking and red tape do not stymie our bright cosmic future.

SUMMARY OF ARGUMENT

While on the D.C. Circuit, then-Judge Scalia lamented “the territorial imperative that impels this court to extend its writ to foreign lands.” *Beattie v. United States*, 756 F.2d 91, 106 (D.C. Cir. 1984) (dissenting opinion), overruled (and Scalia’s position adopted) by *Smith v. United States*, 507 U.S. 197 (1993). In this case, the Court is asked to go yet further—to slip the surly bonds of Earth and seek dominion over outer space.

Using innovative (and cheaper) rockets, more and better equipped (and, again, cheaper) satellites, and lower orbits than its competitors,

SpaceX is revolutionizing Internet service. Through its “Starlink” constellation of satellites, SpaceX has become the first company to provide widespread, low-latency, reasonable cost, direct-to-consumer satellite broadband. The Federal Communications Commission (FCC) has generally supported SpaceX’s efforts. In 2018 the FCC approved the launch of SpaceX’s first batch of satellites. Since then, it has issued several further orders granting SpaceX permission to modify and expand the Starlink constellation. The order at issue here permits the deployment of Gen2 Starlink satellites, which will “help close the digital divide” around the world. FCC Br. 2. All along the way, the FCC has been satisfied with SpaceX’s plans to ensure that these satellites do not collide with other space objects, emit orbital debris (the FCC’s orbital debris rules are the strictest in the world), strike Earth on re-entry, or reflect much light.

Before the FCC, some commenters—including a competitor with “a single satellite that flies close to SpaceX’s constellation,” *Viasat, Inc. v. FCC*, 47 F.4th 769, 779 (D.C. Cir. 2022)—argued that the FCC’s latest order fails to comply with the National Environmental Policy Act (NEPA). NEPA requires a federal agency to assess the environmental impact of a major government action (including, where applicable, the granting of a permit). An agency may categorically exclude from

assessment actions that reliably produce no environmental effect. The objecting commenters (henceforth “the objectors”) argued primarily that the FCC erred in treating its order as a categorically excluded satellite licensing. We agree with the FCC and SpaceX that, contrary to the objectors’ contention, the FCC was correct in finding no risk of significant environmental impact sufficient to justify departing from that categorical exclusion and directing further study.

We write to make a further and more fundamental point. NEPA, we contend, does not apply in the first place:

A. American law is presumed not to apply beyond American borders. To overcome this presumption, a law generally must explicitly refer to the extraterritorial place in question. To apply to the high seas, a law generally must use the words “high seas.” To apply in space, a law generally must announce that it applies “in space.”

B. Despite being passed at the height of the Space Race, NEPA never mentions space. In fact, it is far from clear that NEPA even applies extraterritorially *on Earth*. NEPA demands coordination among different levels of American government, for instance, with no mention of foreign governments. In any event, NEPA explicitly refers to “man’s environment,” the “human environment,” and the “biosphere”—thus confirming that it is an Earth-bound statute.

What NEPA's text establishes, extratextual factors confirm. Even a statute that generally applies abroad does not do so where Congress lacks legislative control. Congress lacks control over outer space as a matter of fact (other countries operate there more or less as they will), and the United States has, by treaty, disclaimed such control as a matter of law. Moreover, a statute should not apply abroad in defiance of American foreign-policy interests. Yet it is in the United States' interest that an American company benefit other nations, by providing affordable broadband Internet to their remote (or, as in Ukraine, war-torn) regions.

The case law offers further proof that NEPA does not extend to space. Although much of that law comes from district court decisions (and none of it deals directly with space), the weight of authority supports the position that NEPA does not even apply outside the United States, never mind off planet.

C. Applying these principles to the specific arguments raised by the objectors below yields exactly the expected result: the FCC's order is not subject to NEPA. Even if the statutory text permitted NEPA's application in space (it doesn't), other factors would foreclose its application in this case. Among these are the facts that America does not rule space, that Starlink is a foreign-policy asset for the United States, and that the objectors' concerns are overstated and speculative.

ARGUMENT

NEPA Does Not Apply in Outer Space

Before it considers whether the FCC properly applied NEPA, the Court should consider whether NEPA applies at all. Can NEPA overcome the strong presumption against applying statutes outside American territory? NEPA's text, Congress's lack of control over outer space, the foreign-policy issues inherent in trying to regulate space, and adverse case law all confirm that, certainly in this case, the answer is no.

A. 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 United States.” *EEOC v. Arabian Am. Oil Co.*, 499 U.S. 244, 248 (1991). A court is to “presume,” in other words, “that statutes do not apply extraterritorially[.]” *Hernandez v. Mesa*, 140 S. Ct. 735, 747 (2020). 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.” *RJR Nabisco, Inc. v. Euro. Cmty.*, 136 S. Ct. 2090, 2100 (2016) (emphasis added). Any “lingering doubt” should be “resolved” against extraterritoriality. *Smith*, 507 U.S. at 203-04.

To understand just how “clearly expressed” the “congressional intent” in favor of extraterritoriality must be, consider *Argentine Republic v. Amerada Hess Shipping*, 488 U.S. 428 (1989). The statute at issue there said it applied in “territory and waters, continental and insular, subject to the jurisdiction of the United States.” *Id.* at 440. *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.” *Id.* “When it desires to do so,” *Amerada Hess* concludes, “Congress knows how to place the high seas within the jurisdictional reach of a statute.” *Id.* The decision then cites laws that explicitly use the words “high seas.” *Id.* at 440 n.7.

That’s the bar, when it comes to extraterritoriality, for a “clearly expressed” congressional intent. 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, 18 U.S.C. § 7(6) extends American criminal-law jurisdiction to American-registered vehicles “used or designed for flight or navigation in space.” And 35 U.S.C. § 105(a) extends American intellectual-property protections to “[a]ny invention made, used, or sold in outer space[.]” To apply in outer space, NEPA would need to look like these laws. It would need to explicitly refer to space. *Amerada Hess* demands as much.

B. NEPA Does Not Overcome the Presumption Against Extraterritoriality

NEPA says nothing like that. On the contrary, its text suggests at every turn that the statute is a distinctly terrestrial one. Extratextual factors, meanwhile, show that NEPA does not even apply abroad, let alone in outer space. The case law points in the same direction.

1. NEPA's Text

Congress never “clearly expressed” an intent that NEPA apply abroad. On the contrary, “the intention of the NEPA Congress” is “obscure.” *NRDC v. Nuclear Reg. Comm'n*, 647 F.2d 1345, 1367 (D.C. Cir. 1981) (Wilkey, J., solo opinion for the court). “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.” *Greenpeace USA v. Stone*, 748 F. Supp. 749, 759 (D. Haw. 1990); see 42 U.S.C. § 4332(2)(F). The bottom line is that “nothing in NEPA’s language suggests Congress intended NEPA to apply outside United States territory.” *Consejo de Desarrollo Economico de Mexicali, AC v. United States*, 438 F. Supp. 2d 1207, 1234 (D. Nev. 2006).

And if NEPA says “nothing” about applying “outside United States territory,” all the more does it say nothing about applying in outer space.

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 (about which more below). Clearly Congress was aware of advances in space, and it could easily have expressed a desire for NEPA to apply there. 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*.” 42 U.S.C. § 4332(2)(A) (emphasis added). It requires that reports be prepared on the impact of “major Federal actions significantly affecting the quality of the *human environment*.” *Id.* § 4332(2)(C) (emphasis added). And it says that one of its purposes is to protect “the environment and *biosphere*.” *Id.* § 4331 (emphasis added). Note too that NEPA talks of coordination specifically among “Federal, State, and local agencies.” *Id.* § 4332(2)(C)(v). 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. See *Consejo*, 438 F. Supp. 2d at 1234.

In asserting an “intrinsic *environmental* relationship between Earth and its orbital space,” Dark-Sky AOB 21, one appellant engages in precisely the kind of linguistic stretching that *Amerada Hess* forecloses. True enough, Earth and its orbital space share a connection. The same could be said of Earth and the surface of the Sun. Space is not part of the biosphere—i.e., the places on Earth that can *sustain* life. See Biosphere, *National Geographic*, <https://tinyurl.com/2krv vxz4> (all websites accessed June 14, 2023). NEPA must be given a *constrained* territorial scope—not one expanded by inventive inferences. If “waters” could not encompass the high seas in *Amerada Hess*, “*human environment*” cannot encompass satellite orbits in this case.

2. Other Factors

Two other factors underscore NEPA’s inapplicability to outer space. 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.

a. Lack of Congressional Control

“United States law governs domestically but does not rule the world.” *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 454 (2007). “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.” *N.Y. Cent. R.R. Co. v. Chisholm*, 268 U.S. 29, 31-32 (1925). 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. See James E. Dunstan, *Who wants to step up to a \$10 billion risk?*, SpaceNews, <https://bit.ly/3dNoYzk> (June 25, 2021) (discussing a company’s acquisition of a “flag of convenience” satellite license from Papua New Guinea).

Not only does America lack control over space as a matter of fact; it has actively *disclaimed* such control as a matter of international law. Several treaties fill the vacuum (as it were).

The main such authority is the Outer Space Treaty, which 113 countries have joined. United Nations, Office for Disarmament Affairs, <https://bit.ly/3yPJk3e>. “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.” *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space*,

Including the Moon and Other Celestial Bodies, 18 U.S.T. 2410, art. II (Jan. 27, 1967). 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. *Id.* art. VIII. This is not the same, however, as having control over a territory. Congress doubtless can regulate American ships; that does not mean it *controls* the high seas. See *Basel Action Network v. Maritime Admin.*, 370 F. Supp. 2d 57, 72 (D.D.C. 2005); contra Dark-Sky AOB 21-22 (conflating “control” over American “satellite operations” and “control” over “orbital space”). The Antarctic Treaty says that visitors to that continent remain “subject to the jurisdiction” of their respective nations, *Antarctic Treaty*, 12 U.S.T. 794, art. VIII (Dec. 1, 1959); that does not mean Congress *controls* Antarctica, *Smith*, 507 U.S. 197. The question is not whether Congress *could* extend NEPA to American space objects. It could try, if it really wanted to. The question, rather, is whether Congress is *sovereign* in space. Because it isn’t—as other articles in 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.

Space is not without rules. A nation that joins the Outer Space Treaty is liable to other treaty-joining nations for conducting or hosting a launch into space of an object that causes damage to any of those other nations. *Id.* 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*. 24 U.S.T. 2389 (Mar. 29, 1972). 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 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*, 28 U.S.T. 695 (Jan. 14, 1975).

“By the Constitution,” of course, “a treaty is placed on the same footing, and made of like obligation, with an act of legislation.” *Whitney v. Robertson*, 124 U.S. 190, 194 (1888). As far as the United States is concerned, the treaties above are governing law. And when it comes to satellites, to repeat, our nation ultimately cannot stop other nations from

doing what they will (including, if it comes to it, by refusing to join or opting out of the treaties). As a matter both of law and of fact, therefore, Congress lacks legislative control over outer space.

b. 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.” *Mesa*, 140 S. Ct. at 747.

The “foreign policy consequences” that Congress was willing to generate, in passing NEPA, are anything but “clear.” *Id.* 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 for this Court in *NRDC v. Nuclear Regulatory Commission*, 647 F.2d 1345 (D.C. Cir. 1981). 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.” 647 F.2d at 1373 (discussing the Nuclear Non-Proliferation Act of 1978,

22 U.S.C. § 3201, *et seq.*). 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 environmental protection. *Id.* at 1367. The plaintiffs before him were not entitled to “presume that they can represent the Philippine environment” by imposing NEPA abroad. *Id.*

The foreign-policy implications of the present case are weighty indeed. The most recent national space policy directs the federal government to “promote the export of United States commercial space goods and services ... for use in international markets.” *National Space Policy of the United States of America* 22 (Dec. 9, 2020), available at <https://bit.ly/3lVEAEq>. As the Biden administration explains: “Access to and use of space is a vital national interest. ... Space activities ... improve the daily lives of ... people around the world.” *United States Space Priorities Framework* 3, 7 (Dec. 1, 2021), available at <https://bit.ly/3BwAwCD>. Among the United Nations’ Sustainable Development Goals, meanwhile, are to “significantly increase access to information and communications technology” and to “provide universal and affordable

access to the Internet.” United Nations, Dep’t of Economic & Social Affairs, *Sustainable Development Goal 9*, <https://bit.ly/3iNenGw> (see “targets and indicators”).

Enter SpaceX, an American company that could soon provide Internet access to the entire planet through its Starlink project. See SpaceX, *Starlink Map*, available at <https://bit.ly/3Wb1itH>. Specifically, SpaceX seeks to bring “high-speed, reliable, and affordable broadband service” to consumers “around the world, including areas underserved or currently unserved by existing networks.” *In re Space Expl. Holdings, LLC*, 33 FCC Rcd. 3,391 ¶ 1 (2018). Starlink could be a foreign-relations boon for the United States. Indeed, it already has been, providing Internet to Ukraine during the Russian invasion. See Alec Stapp, *To the Moon and Stars*, City Journal, <https://tinyurl.com/5233a9yu> (Mar. 3, 2022) (noting that, through this act, SpaceX “has demonstrated that [it] is a strategic national asset for the United States”). Not surprisingly, the FCC has concluded that Starlink serves the public interest. FCC Br. 2, 14.

Congress presumably *wants* the foreign-policy benefits of American-provided satellite broadband. It presumably *doesn't* want to cede those benefits to another nation, such as China. See Andrew Jones, *The Coming Chinese Megaconstellation Revolution*, SpaceNews, <https://>

bit.ly/42y1iq5 (Feb. 23, 2023). And it presumably *doesn't* want private parties meddling in these foreign-policy issues by claiming to “represent” other countries’ “environment.” *NRDC*, 647 F.2d at 1367. Nothing in NEPA unsettles any of these presumptions. And the presumptions hold even though satellite launches might pose a conceivable risk of creating some ancillary costs back on Earth. There is no sign in NEPA that Congress would want those possible 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, poverty-stricken, or war-ravaged regions around the world.

At the very least, this Court cannot know whether applying NEPA in outer space would erroneously create “foreign policy consequences not clearly intended by the political branches.” *Mesa*, 140 S. Ct. at 747. That uncertainty is all it takes for NEPA not to apply in outer space.

3. Case Law

The case law, on the whole, confirms that NEPA should not apply extraterritorially, let alone in outer space. In addition to Judge Wilkey’s opinion in *NRDC*, 647 F.2d 1345, consider:

- *Mayaguezanos por la Salud y el Ambiente v. United States*, 198 F.3d 297 (1st Cir. 1999), addressed a global scheme that involved sending uranium from the United States to Japan,

nuclear waste from Japan to France, and re-refined nuclear material from France to Japan again. The plaintiff argued that NEPA applied, at least as the nuclear material traversed waters near the United States. The First Circuit's response? "We are skeptical." *Id.* at 300. (The court ultimately resolved the case on a different ground.)

- *Consejo de Desarrollo*, 438 F. Supp. 2d 1207, assessed the federal government's work on a canal-lining project at the U.S.-Mexico border. "Although the agency action of constructing and lining a new section" of the canal would "occur within the United States," the court declared, most of "the projects' effects" would "occur outside United States territory in Mexico, a sovereign nation over which Congress lacks legislative control." *Id.* at 1235. NEPA, the court ruled, did not apply to those extraterritorial effects. The *transboundary* effects of the projects, meanwhile, such as potential water seepage into the United States caused by *Mexico's* water use, were speculative and outside the federal government's control. *Id.* at 1236-37 (discussing *Dep't of Transp. v. Public Citizen*, 541 U.S. 752, 769 (2004)). Therefore NEPA did not apply to those either. *Id.* at 1236-38.

- *Basel Action Network*, 370 F. Supp. 2d 57, involved the towing of decommissioned military vessels from Virginia to a shipbreaker in the United Kingdom. The court concluded that NEPA did not apply to the ships' journey on the high seas. After all, "legislation of Congress, unless contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States." *Id.* at 71 (quoting *Smith*, 507 U.S. at 204).
- At issue in *NEPA Coalition of Japan v. Aspin*, 837 F. Supp. 466 (D.D.C. 1993), was whether NEPA applied to certain military bases in Japan. The court concluded that it did not. The military's activity at the bases was governed by "long standing treaty arrangements." *Id.* at 467. Were it to require the military to comply with NEPA, "the Court would risk intruding" on that "treaty relationship." *Id.* Even if NEPA *did* apply, moreover, no environmental assessment would have been required, because "U.S. foreign policy interests" would "outweigh the benefits from preparing" one. *Id.* at 468.
- *Greenpeace USA*, 748 F. Supp. 749, addressed the removal, by the military, of a weapons stockpile in Germany. Did NEPA apply? No. It was crucial, the court noted, to "balance[e] the

environmental goals of NEPA against the particular foreign policy concerns which federal action abroad necessarily entails.” *Id.* at 760. The removal of the stockpile was undertaken “with the encouragement, cooperation and approval of the West German government.” *Id.* at 759. Foreign-policy concerns thus trumped foreign application of NEPA.

- *Born Free USA v. Norton*, 278 F. Supp. 2d 5 (D.D.C. 2003), vacated as moot, No. 03-5216, 2004 WL 180263 (D.C. Cir. Jan 21, 2004), involved the transfer of elephants from Swaziland to the United States. Was compliance with NEPA required? Once again, no. Statutes are presumed not to apply extraterritorially, the court noted. And applying NEPA “would be to no avail in any event,” because the federal government was “not [in] a position to control whether the elephants should be removed from the[ir] herds.” *Id.* at 20.

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 *launched* from Virginia—much as SpaceX’s satellites *launch* from Florida—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.

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 *wants* satellite broadband access *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. See *NRDC*, 647 F.2d 1345 (foreign-policy value of nuclear exports counts against applying NEPA to the export process); *National Space Policy*, *supra*, at 22 (confirming the foreign-policy value of exporting "commercial space goods and services").

Third, the cases confirm that NEPA should not apply abroad when, regardless 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 here. 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. 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*, 986 F.2d 528 (D.C. Cir. 1993), applied NEPA to a federal government plan to incinerate food waste in Antarctica. But *Massey* is quite distinct from this case. Antarctica, *Massey* declares, is “an area over which the United States has a great measure of legislative control.” *Id.* at 529. As we’ve explained, that is not true of outer space.

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*, 756 F.2d 91, 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 *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).

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.” 986 F.2d at 532. But as *Basel Action Network* explains, this was only one “of the four factors relied on ... in *Massey*.” 370 F. Supp. 2d at 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.” *Id.*; see also *Consejo de Desarrollo*, 438 F. Supp. 2d at 1235-38 (declining to apply NEPA abroad in a case that clearly involved domestic decision

making). In addition, *Massey* concluded that the facts before it presented no weighty issues of foreign policy. 986 F.2d at 535. In that way, too, is it distinguishable from both this Court's decision in *NRDC* (involving the export of nuclear material to the Philippines) and this case (involving the export of 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 statute aimed at *man's* environment and the *biosphere* governs off planet.

The case law runs strongly against the notion that NEPA applies in outer space.

C. NEPA Does Not Apply Here

It should by now be clear that NEPA does not apply in outer space. The default presumption is that NEPA applies only domestically. NEPA's text, the absence of congressional control over the firmament, and foreign-policy concerns confirm that the law applies, at most, only on Earth. The text and the case law strongly suggest that, outside the United States, NEPA does not even apply there—forget the heavens.

At the risk of stating the obvious, we will now explain how these principles apply to the specific NEPA challenges raised before the FCC.

Because those challenges all connect closely to activity in outer space, it should come as no surprise that NEPA does not govern them.

1. Night Sky, Astronomical Observation

The objectors before the FCC were concerned that reflections from Starlink satellites will cause light pollution and obstruct Earth-based astronomical research. It does not follow, of course, that NEPA governs outer space, where such reflections originate.

This case involves foreign-policy consequences—the provision of satellite broadband to other countries—that strengthen the (already strong) presumption against extraterritorial application of American law. The objectors tried, in effect, to weigh foreign-policy considerations for themselves. Faced with the benefits of supplying remote, poverty-stricken, or war-torn areas in other countries with Internet, however, the objectors may not presume to speak for the atmosphere. See *NRDC*, 647 F.2d at 1367. Likewise, this Court is not to weigh foreign-policy consequences against the consequences of extending NEPA into a foreign area. Its proper role, rather, is simply to stay out of the way. See *Mesa*, 140 S. Ct. at 747.

In addition, the objectors may not extend the law to a place where Congress has no control. The simple truth is that if satellite operators are blocked from, or drastically delayed in, launching satellites from the

United States, they will launch satellites from somewhere else—from the Baikonur Cosmodrome in Kazakhstan, say, or from the Guiana Space Centre in French Guiana. “A threat that depends upon the choice of the party affected to bring himself within [the court’s] power hardly would be called law in the ordinary sense.” *Am. Banana Co. v. Utd. Fruit Co.*, 213 U.S. 347, 357 (1909) (Holmes, J.), overruled by *Cont’l Ore Co. v. Un. Carbide Carbon Corp.*, 370 U.S. 690, 704-05 (1962), on the ground that antitrust law is a special case.

Finally, even putting questions of extraterritoriality aside, it is worth asking whether “time and resources are simply too limited” for it to be plausible “that Congress intended to extend NEPA as far as” small reflections emanating from space. *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 776 (1983).

2. Launch and Re-Entry Emissions

The objectors feared that as Starlink satellites disintegrate on re-entering the atmosphere, they will release harmful amounts of aluminum oxide and other chemical compounds. The objectors also worried that SpaceX’s satellite launches will harm the ozone layer. Once again, though, these concerns run into countervailing foreign policy gains (the benefits that accrue from providing broadband worldwide) and a lack

of legislative control (Congress does not control outer space). Therefore NEPA does not apply.

Concededly, Starlink launches occur from United States soil. But the Federal Aviation Administration—the agency responsible for assessing and approving commercial space launches—has conducted an environmental assessment that covers the rocket launches that will carry the Starlink satellites at issue here. FCC Br. 75-77; see 47 C.F.R. § 1.1311(e) (FCC need not duplicate other agencies’ environmental assessments). As far as applying NEPA domestically *to launches* goes, the proper government party is not present in this appeal.

3. Space Traffic, Ground Safety

For completeness, we address one argument that no party has raised in this appeal. The objectors before the FCC invoked the risk of satellites colliding or, as they deorbit, emitting debris that hits Earth. This argument, too, fails. We must return to the foreign-policy considerations. Compare *NRDC*, where there was a risk that transporting nuclear material to the Philippines would result in a nuclear accident. The plaintiffs there still could not “presume” to “represent the Philippine environment.” 647 F.2d at 1367.

And again, Congress lacks legislative control over outer space. The United States cannot stop other nations from launching satellites. Neither, therefore, can it stop other nations from causing orbital collisions, or from causing debris to fall *from outer space* down to Earth. Space collisions, and falling space debris, can at most create disputes fit for resolution under the Liability Convention.

In any event, NEPA does not cover speculative events. *Consejo de Desarrollo*, 438 F. Supp. 2d at 1236-38. Just as it was speculative, in *Consejo de Desarrollo*, that Mexican water use might cause water seepage back into the United States, so it is speculative here that a deorbiting satellite might create debris that lands domestically. The odds of that occurring are the small probability of debris hitting Earth times the small probability that the debris hits the United States—a landmass that covers only about 1.8% of the Earth’s surface. World Economic Forum, *How much of Earth’s surface is covered by each country—in one graphic*, <https://bit.ly/3i3DsMZ> (Jan. 28, 2021).

Unlike the environmental concerns raised here, a concern that NEPA-caused delays could drive space launches overseas is *not* speculative. America has lost the launch market before, and it could do so again. “By 2006, ... America essentially captured zero percent of the

competitive launch market. Customers in the United States and abroad turned to more economical launchers in Europe, Russia, and elsewhere to reach orbit.” Eric Berger, *Forget Dragon, the Falcon 9 rocket is the secret sauce of SpaceX’s success*, Ars Technica, <https://bit.ly/3wfpJfk> (June 3, 2020). “The success of the [SpaceX] Falcon 9 rocket reversed this trend dramatically. ... [T]he United States of America now has about 70 percent of the commercial launch market.” *Id.* It is not for the judiciary to squander this regained ground and hard-won advantage through a novel and unwarranted application of NEPA.

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Providing fast, reliable, affordable satellite broadband Internet is an immensely challenging undertaking. SpaceX will likely have to make a \$5 to \$10 billion up-front investment. Marguerite Reardon, *Elon Musk says Starlink will be available worldwide in August*, CNET, <https://cnet.co/2UujqmI> (June 29, 2021). That investment is being made, moreover, in a market littered with failure: every other low-Earth communications constellation has struggled financially. *Id.* Starlink’s number one goal, SpaceX CEO Elon Musk has quipped, is simply not to go bankrupt. *Id.*

The objectors are trying to add to this challenge by employing a well-worn tactic: wield NEPA as a veto on building and development. See, e.g., Jerusalem Demsas, *Why does it cost so much to build things in*

America?, Vox, <https://bit.ly/3dVCuRx> (June 28, 2021). It's been argued that NEPA "doesn't actually privilege environmental protection"; that, "like any procedural requirement, it privileges the status quo." Eli Dourado, *Why are we so slow today? Five amazing facts about environmental review*, The Benchmark, <https://bit.ly/3hHMC1v> (Mar. 20, 2020). A court is, of course, dutybound to apply the law as it finds it. It's not the judiciary's job to fix NEPA. A court *can*, however, ensure that NEPA's scope is not mindlessly, misguidedly, and wrongly expanded. NEPA already causes enough trouble for builders, innovators, and entrepreneurs on Earth. It doesn't need to boldly go to the final frontier.

CONCLUSION

The order should be affirmed.

June 20, 2023

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I certify:

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On June 20, 2023, a copy of this brief was filed and served on all registered counsel through the Court's CM/ECF system.

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