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Abstract

Article VI of the Outer Space Treaty states that "the activities of non-governmental entities shall require authorization and continuing supervision." This has caused confusion for the US government and for private entities that plan to operate in outer space engaging in nontraditional businesses such as satellite servicing or asteroid mining. Many interested parties believe Article VI means that private entities may not operate without governmental authorization and continuing supervision. The Federal Aviation Administration (FAA) suggests that Article VI gives it authority to deny access to space to the unauthorized and unsupervised. A clearer understanding of the law should put these concerns to rest. Article VI is not self-executing. This means that it is not enforceable federal law unless Congress enacts domestic implementing legislation. Therefore, private actors may operate in outer space, even without authorization or supervision, and the FAA and other regulatory agencies may not rely on Article VI to attempt to deny these actors access to space.

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US Regulators May Not Prevent Private Space Activity on the Basis of Article VI of the Outer Space Treaty

Laura Montgomery

Article VI of the Outer Space Treaty,[1] which states that "the activities of non-governmental entities shall require authorization and continuing supervision," has served as a continuing source of confusion for the US government and for US companies and citizens that plan to operate in outer space employing nontraditional business models. Nontraditional enterprises include asteroid mining, satellite servicing, and the operation of lunar or orbital habitats. Many interested parties are convinced that Article VI means private entities may not operate without governmental authorization and continuing supervision of some sort. Some private companies state that their investors believe this to be the case. Executive branch agencies, including the Federal Aviation Administration (FAA), suggest that they may deny access to space to the unauthorized, and that the solution to this regulatory uncertainty is regulation. A clearer understanding of the law, including an understanding both of what Article VI says and means and of the US law on non-self-executing treaties, should put these concerns to rest. As explained in this paper, private actors may operate in outer space even without authorization or supervision, and the FAA and other regulatory agencies may not rely on Article VI to deny private actors access to space.

The treaty itself does not prohibit private activities. Instead, it imposes obligations on the United States with regard to those activities, including requiring the United States to bear "international responsibility" for the acts of its nationals. Additionally, Article VI is not self-executing. This means that it does not have the force of law within the United States without an

[1] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, January 27, 1967, 610 U.N.T.S. 205 (adopted by the General Assembly in its resolution 2222 [XXI] and entered into force on October 10, 1967).

explicit act of Congress applying it to a private space activity and assigning authority over that specific activity to whatever regulatory agency Congress considers most appropriate. Accordingly, Article VI should not be a barrier to private space activity, despite its call for authorization and continuing supervision.

This paper takes no position regarding whether policy considerations related to safety, national security, liability exposure, or other issues might merit the authorization and continuing supervision (what I will sometimes refer to collectively as "regulation") of any given private space activity or operator. Nor does this paper constitute an analysis of the international legal obligations of the United States under Article VI. The paper addresses itself only to the question of whether Article VI, without congressional legislation to implement it, may serve as a mechanism for barring a private operator from accessing space.

Section I reviews the nontraditional businesses that seek to operate in outer space, including those proposing orbital habitats and lunar transport, and then looks at the response of the executive branch to these activities. The response shows that the executive branch, including specifically the Federal Aviation Administration, believes it may deny private actors access to space because of Article VI of the Outer Space Treaty. Section II lays out the constitutional and treaty background, and shows that—while a treaty is the supreme law of the land—the treaty itself may impose an obligation on one branch of the government that the other branches must wait upon before attempting any implementation of their own. Section III shows why Article VI is not self-executing and therefore is not enforceable against private actors unless and until Congress makes it so. Like other non-self-executing treaties, Article VI contains language of future effect and leaves policy determinations to the legislative branch of the government. The testimony of the chief negotiator for the Outer Space Treaty supports the textually based

conclusion that Article VI is not self-executing, and the post-ratification history does as well. Ultimately, what this means is that the regulatory agencies of the executive branch may not use Article VI as a basis for denying someone access to space unless and until Congress enacts implementing legislation.

I. The Problem: New Space Enterprises and the US Government Threat to Deny Access to Space

For decades now, private companies have operated communication satellites under the regulatory oversight of the Federal Communications Commission (FCC) and remote sensing satellites under that of the National Oceanic and Atmospheric Administration of the Department of Commerce.[2] Private companies also have been launching launch vehicles, reentering reentry vehicles, and operating spaceports under the FAA's regulatory oversight.[3]

Recent years have seen an increase in nontraditional in-space activities encompassing more than just telecommunications and remote sensing. Bigelow Aerospace, with its vision for creating commercial space platforms for low Earth orbit and beyond,[4] originally launched two prototypes of its proposed orbital habitats,[5] and, more recently, added its BEAM habitat to the International Space Station.[6] By the time the present space station retires, Bigelow may have a space station of its own.[7] Deep Space Industries and Planetary Resources plan to mine asteroids.[8] Other companies, including Orbital ATK and SSL, plan to service orbiting satellites in need of

[2] Federal Communications Act of 1934, 47 U.S.C. § 153(42); Land Remote Sensing Policy Act, 51 U.S.C. ch. 601, subchapter III, §§ 60121–25.
[3] Commercial Space Launch Act, now at 51 U.S.C. ch. 509.
[4] "Who We Are," Bigelow Aerospace, accessed March 22, 2018, http://bigelowaerospace.com/whoweare/.
[5] Tariq Malik and Leonard David, "Bigelow's Second Orbital Module Launches into Space," *Space.com*, June 28, 2007.
[6] Eric Berger, "After Six Months in Orbit, That Space Inflatable Habitat Is Holding Up Well," *Ars Technica*, November 22, 2016.
[7] John Wenz, "Take a Look Inside Bigelow's Giant Space Habitat," *Popular Mechanics*, January 13, 2016.
[8] Deep Space Industries (website), accessed March 22, 2018, http://deepspaceindustries.com/; Planetary Resources (website), accessed March 22, 2018, https://www.planetaryresources.com/why-asteroids/.

repair or refueling.[9] SpaceX plans to fly a crewed mission beyond the Moon.[10] Then there are those who want to go to Mars. In addition to such foreign entities as Mars One, which aims to establish a permanent human settlement on Mars,[11] SpaceX also contemplates a voyage to the red planet.[12]

Both historically and recently, agencies of the executive branch have intimated or stated that they might deny an operator access to space because a particular activity in space lacks regulatory oversight.

With the advent of new companies and business models, the executive branch under President Obama prepared a report—in response to a congressional requirement—on what to do about these new, private space actors. Section 108 of the Commercial Space Launch Competitiveness Act required the director of the White House Office of Science and Technology Policy to consult with the heads of agencies and the commercial space sector to, among other things, "recommend an authorization and supervision approach that would prioritize safety, utilize existing authorities, minimize burdens to the industry, promote the U.S. commercial space sector, and meet the United States obligations under international treaties."[13] The executive branch report (often referred to as the "OSTP Section 108 report") said that, although existing regulatory frameworks have served the United States well by addressing existing commercial space activities, "they do not, by themselves, provide clear avenues through which the U.S. Government can fulfill its Article VI obligations in relation to the newly contemplated

[9] Jeff Foust, "Federal Court Dismisses Orbital ATK Suit over Satellite Servicing Program," *Space News*, July 13, 2017.
[10] SpaceX, "SpaceX to Send Privately Crewed Dragon Spacecraft beyond the Moon Next Year," press release, February 27, 2017.
[11] "About Mars One," Mars One, accessed March 22,2018, http://www.mars-one.com/about-mars-one.
[12] Mariella Moon, "SpaceX Reschedules Its Unmanned Red Dragon Mission to Mars," *Engadget*, February 18, 2017.
[13] U.S. Commercial Space Launch Competitiveness Act, Pub. L. No. 114-90, 129 Stat. 704, 708 (2015).

commercial space activities."[14] The report implied that the activities could not take place without authorization and supervision: "The economic vitality of the American space industry is best served with a clear and predictable oversight process that ensures access to space and imposes minimal burdens on the industry."[15] This statement, claiming that oversight is required to ensure access, implies that without oversight in the form of authorization and supervision, access may be denied.

Another source of regulatory uncertainty is the FAA's payload review process. The FAA licenses the cargo carriers—the launch and reentry vehicles—that take cargo (called payloads) to and from orbit or outer space.[16] Because lunar habitats, mining machines, and space tugs are objects, they are payloads under the Commercial Space Launch Act,[17] and the FAA reviews them as part of its review of a launch or reentry operator's application for a launch or reentry license, respectively.[18] Although the FAA does not license or permit payloads or their operations, Congress charges the FAA under 51 U.S.C. § 50904 with conducting payload reviews before issuing a launch license. Specifically, the statute provides that if "no authorization, license or permit is required, the [FAA] may prevent the launch or reentry if the [FAA] decides the launch or reentry would jeopardize [among other things] . . . [a] foreign policy interest of the United States."[19] As shown here, the FAA fears that unauthorized and unsupervised private space activity may jeopardize US compliance with Article VI of the Outer Space Treaty.

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[14] Report from the Executive Office of the President, Office of Science and Technology Policy, to Chairmen Thune and Smith (hereinafter the OSTP Section 108 report), 3 (April 4, 2016).
[15] OSTP Section 108 report, 4.
[16] 51 U.S.C. §§ 50904, 50905; 14 C.F.R. Ch. III, parts 413, 415, 417, 431, and 435.
[17] "Payload means an object that a person undertakes to place in outer space by means of a launch vehicle or reentry vehicle, including components of the vehicle specifically designed or adapted for that object." 51 U.S.C. § 50902(13).
[18] 51 U.S.C. §§ 50904, 50905; 14 C.F.R. Ch. III, parts 413, 415, 417, 431, and 435.
[19] 51 U.S.C. § 50904(c). See also 14 C.F.R. part 415, subpart D, which contains the FAA's regulatory requirements for its payload review.

Although the FAA's position has been inconsistent since 1999 regarding whether it may deny access to space to nongovernmental entities engaged in nontraditional space activities, it most recently declared by press release that it may deny a payload operator access to space because Congress gave the agency the authority to prevent a launch if a prospective payload operator jeopardized a foreign policy interest.

The FAA's 2016 press release about its favorable payload review for Moon Express's operation of a spacecraft and lunar vehicle shows that, even in the absence of implementing legislation from Congress, the FAA is attempting to enforce Article VI against private actors.[20] The FAA notes that Article VI requires authorization and supervision of the activities of nongovernmental entities in outer space, and reports that it consulted with the Department of State.[21] The press release states that Moon Express satisfied the statutory criteria and that the FAA considered its favorable determination final and, absent any material change in information, would incorporate its determination in an applicable launch license application.[22] With the State Department's concurrence, the FAA announced that the favorable payload determination complied with Article VI because the agency was able to enforce the representations that Moon Express made in its application for a payload review,[23] thus satisfying the treaty requirement for continuing supervision.

The FAA also made sure to note that not all nontraditional missions would necessarily lend themselves to favorable payload determinations, and that "future missions may require additional authority to be provided to the FAA to ensure conformity with the Outer Space

[20] Federal Aviation Administration, "Fact Sheet—Moon Express Payload Review Determination," press release, August 3, 2016.
[21] Federal Aviation Administration, "Fact Sheet."
[22] Federal Aviation Administration, "Fact Sheet."
[23] Federal Aviation Administration, "Fact Sheet."

Treaty."[24] The FAA's interest in "additional authority" means Congress would have to legislate and give the FAA jurisdiction not merely over launch and reentry, but over activities in space as well. In other words, the FAA believes it has the legal ability or obligation to deny access to space to private entities not otherwise authorized and continuously supervised. Although the FAA granted a favorable payload determination to Moon Express, it made clear that Article VI might prevent it from making a favorable determination for a future private operator.

How the FAA reached this point may be traced back to an early, aborted payload review in 1999, when the FAA's Office of Commercial Space Transportation failed to complete a favorable payload determination and thus denied a potential nuclear space tug operator access to space owing to lack of regulatory oversight.[25] Specifically, the FAA could "identify no government agency that would have continuing regulatory or supervisory control over the on orbit operation by INTRASPACE Corporation of a nuclear powered space transportation system."[26] The FAA explained,

> The absence of on orbit jurisdiction over the proposed payload means that no government agency would have regulatory oversight to ensure adherence to any necessary operating restrictions and to safeguard U.S. national interests. Absent a favorable payload determination a license authorizing launch of the proposed payload would not be issued.[27]

More recently, in 2014, in response to Bigelow Aerospace's request for a payload review of its lunar habitat, the FAA did not find that Bigelow satisfied the statutory or regulatory criteria for a payload determination even though the agency encouraged continued investment in the

[24] Federal Aviation Administration, "Fact Sheet."
[25] Draft letter from Ronald K. Gress, manager of the FAA's Licensing and Safety Division, to Robert D'Ausilio, CEO and president of INTRASPACE Corp., October 26, 1999. Obtained from the FAA by the author under the Freedom of Information Act with representations from FAA staff that this was the best version available. A later communication, also in draft, from Gress to D'Ausilio references the sending of this letter and mentions its date. In the later draft communication, Gress characterizes the earlier letter as "identif[ying] an issue that would impede issuance of a favorable payload determination." The FAA advised that it had forwarded another INTRASPACE letter to the Office of Science and Technology Policy, and that further inquiries should be sent directly to that office.
[26] Draft letter from Gress to D'Ausilio, October 26, 1999.
[27] Draft letter from Gress to D'Ausilio, October 26, 1999.

lunar habitat. Additionally, unlike in an earlier 2004 Bigelow payload review,[28] the FAA did not assure Bigelow that the agency would not reopen the payload determination. In other words, if a launch operator applied for a launch license for Bigelow's 2014 payload, the favorable payload determination would not be incorporated in the FAA's license review. Instead, the FAA found it necessary to advise Bigelow that the agency was in discussions to create a licensing framework that would "enable" innovative activities such as those Bigelow proposed.[29] While this formulation is less draconian than what the FAA told the tug operator, the statement left open the possibility that the FAA might deny Bigelow access to space at a later date if Congress failed to create a regime that would authorize and supervise Bigelow's lunar activities. The conclusion of the FAA's letter to Bigelow supports this interpretation: the agency explained that it was committed to putting in place the necessary framework to support Bigelow's activities and provide it with the security it needed to operate free of harmful interference.[30]

In sum, the FAA's initially inconsistent payload determinations for nontraditional space activities have given way to the agency now publicly declaring it has the ability to implement a non-self-executing treaty, allowing it to deny a payload operator access to space for its payload on the grounds that a regulatory regime is not in place. The favorable payload determinations to Bigelow in 2004 and to Moon Express in 2016 found that the statutory criteria were satisfied and that the FAA would be able to incorporate the payload reviews into any launch license application. The reviews of the nuclear tug and lunar habitat did not. Although it might be argued that the FAA's failure to grant favorable payload determinations to INTRASPACE—for its

[28] Letter from Carole C. Flores, manager of the FAA's Commercial Space Transportation Licensing and Safety Division, to Michael N. Gold, Esq., of Bigelow Aerospace, November 17, 2004. Obtained from the FAA by the author under the Freedom of Information Act. Interestingly, this favorable payload determination for an orbiting model habitat did not raise the issue of lack of regulation on orbit as a concern.
[29] Letter from George Nield, associate administrator for Commercial Space Transportation at the FAA, to Michael Gold, director of D.C. Operations & Business Growth at Bigelow Aerospace, December 22, 2014, 2. Obtained from the FAA by the author under the Freedom of Information Act.
[30] Letter from Nield to Gold, 2.

nuclear tug—and Bigelow—for its lunar habitat—are not technically denials, neither are they favorable determinations that the FAA would incorporate into a launch license application. The FAA's press release for Moon Express, citing Article VI, and its inconsistency on the question of the need for a regulatory body all go toward explaining why a certain question needs to be answered. That question is whether Article VI's requirement for authorization and continuing supervision serves as a barrier to all private space activity or any particular private space activity absent implementing legislation.[31] As the following sections demonstrate, the FAA's claims are legally incorrect, and it may not deny a payload operator access to space on the grounds that no one is regulating its particular activity.

II. US Constitution and Treaty Background

The US Constitution provides the first stop for determining whether and when a treaty applies to US private entities. This section reviews the powers the Constitution allocates to each branch of the government because whether a treaty is self-executing may best be described as a question regarding separation of powers between the three branches of government.[32] This section also reviews the text and history of Article VI. Most of the Outer Space Treaty only addresses

[31] Note as well the congressional hearings held on this topic. The first hearing took place on March 8, 2017, under the Space Subcommittee of the US House of Representatives Committee on Science, Space, and Technology, and was titled Regulating Space: Innovation, Liberty, and International Obligations. Addressing related issues, the Subcommittee on Space, Science and Competitiveness of the Commerce Committee of the US Senate held its own hearing on May 23, 2017, titled Reopening the American Frontier: How the Outer Space Treaty Will Impact American Commerce and Settlement in Space. Both hearings addressed whether Article VI of the Outer Space Treaty requires authorization and continuing supervision of all activities of US nationals in outer space. The author testified at both hearings that it does not.

[32] David L. Sloss, "Taming Madison's Monster: How to Fix Self-Execution Doctrine," *Brigham Young University Law Review*, no. 6 (2015): 1704, 1708, 1733.

governmental activity in the exploration and use of outer space,[33] including the Moon and other celestial bodies, and will not be discussed here.

A. The US Constitution: The Responsibilities of the Different Branches with Respect to Treaties

If there is a conflict between a treaty or statute and the Constitution, the Constitution overrides the conflicting statute or treaty.[34] As Benjamin Perlman noted, "Where a treaty like the [Outer Space Treaty] dictates that signatories will conduct themselves 'in accordance with international law,' this does not mean the United States may act in a way consistent with international law but *inconsistent* with American constitutional law."[35] Accordingly, we start our inquiry by reviewing briefly what the Constitution says about treaties and the roles of the executive and legislative branches. Both branches play a part in fulfilling any international obligations of the United States. The Constitution grants the president the "Power, by and with the Advice and Consent of the

[33] John Myers, "Extraterrestrial Property Rights, Utilizing the Resources of the Final Frontier," *San Diego International Law Journal* 18, no. 1 (Fall 2016), citing John G. Sprankling, *The International Law of Property* (Oxford: Oxford University Press, 2014), 175.

[34] *Igartua v. United States*, 417 F.2d 145 (1st Cir. 2015), and cases cited, including *Reid v. Covert*, 354 U.S. 1, 16–18, 77 S.Ct. 1222 (1957) (plurality opinion) and *Marbury v. Madison*, 5 U.S. (1 Cranch.) 137, 180, 2 L.Ed. 60 (1803) ("a law repugnant to the Constitution is void"). See also Benjamin Perlman, "Grounding U.S. Commercial Space Regulation in the Constitution," *Georgetown Law Journal* 100, no. 3 (2012): 950: "In its opinion, the [Reid] Court took the opportunity to lay out some definitive limits on the Treaty Power: although laws that implement treaties can fall outside of Congress's enumerated powers, no such law may violate other constitutional principles—either those contained in the document itself or ones that come from the Supreme Court's interpretation." And see Andrew D. Finkelman, "The Post-ratification Consensus Agreements of the Parties to the Montreal Protocol: Law or Politics? An Analysis of *Natural Resources Defense Council v. EPA*," *Iowa Law Review* 93, no. 2 (2008): 695–96: "Although international law can never authorize the government to violate the Constitution, U.S. courts generally view international law as a separate legal system rather than one inherently intertwined with domestic law." And see Michael D. Ramsey, "A Textual Approach to Treaty Non-Self-Execution," *Brigham Young University Law Review*, no. 6 (2015): 1642–43, 1646.

[35] Perlman, "Grounding U.S. Commercial Space Regulation," 951.

Senate, . . . , to make Treaties."[36] The Constitution charges the president to "take Care that the laws be faithfully executed."[37] This charge only applies to domestic laws.[38]

The Constitution grants legislative powers to Congress.[39] Congress also plays a role in foreign relations.[40] As the Supreme Court has noted, reiterating a longstanding observation, the Constitution commits the conduct of foreign relations to both the executive and legislative branches of our government.[41] The responsibility for turning a non-self-executing treaty's obligations into domestic law falls to Congress.[42] Congress may also enact legislation that repeals a treaty provision.[43]

Article VI of the US Constitution states that "all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." Does this mean everyone in the United States, including the executive branch, must immediately follow all treaty provisions? No, the law is much more complicated than that. As explained below in Section III of this paper, only if a treaty plainly does not require implementing legislation does it operate as enforceable federal law.

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[36] U.S. Const. art. II, § 2, cl. 2. The Senate's advice and consent is called "ratification" and is not to be confused with the topic of this paper, which is whether a ratified treaty is self-executing.
[37] U.S. Const. art. II, § 3.
[38] "This authority allows the President to execute laws, not make them. For the reasons we have stated, the *Avena* judgment is not domestic law; accordingly, the President cannot rely on his Take Care powers here." *Medellin v. Texas*, 552 U.S. 491, 526, 128 S.Ct. 1346, 1372 (2008).
[39] U.S. Const. art. I, § 1.
[40] U.S. Const. art. I, § 8.
[41] *Medellin*, 552 U.S. at 511, 128 S.Ct. at 1360, citing *Oetjen v. Central Leather Co*., 246 U.S. 297, 38 S.Ct. 309 (1918).
[42] *Medellin*, 552 U.S. at 526, 128 S.Ct. at 1372.
[43] "Indeed, a later-in-time federal statute supersedes inconsistent treaty provisions." *Medellin*, 552 U.S. at 509, 128 S.Ct. at 1359, citing *Cook v. United States*, 288 U.S. 102, 119–20, 53 S.Ct. 305 (1933); *Edye v. Robertson*, 112 U.S. 580, 599, 5 S.Ct. 247, 254 (1884): "The constitution gives [a treaty] no superiority over an act of Congress in this respect, which may be repealed or modified by an act of a later date." See also Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1646. Ramsey notes the later-in-time rule, where a later statute may trump an earlier inconsistent treaty and vice versa.

B. Article VI of the Outer Space Treaty

In 1967, the United States entered into the Outer Space Treaty, a treaty in which the spacefaring nations—including the United States, the former Union of Soviet Socialist Republics, and other countries—addressed issues regarding the exploration and use of outer space. Article VI of the Outer Space Treaty states,

> States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.

Many, including the FAA in its Moon Express press release, have interpreted Article VI of the treaty to mean that a nongovernmental entity may not operate in outer space without federal authorization and continuing supervision. By its own terms, however, Article VI does not require the oversight either of any *particular* space activity or of *all* space activities of US citizens. This observation becomes a subsidiary element in the analysis of whether Article VI is self-executing, and will be discussed in greater detail in Section III.

Article VI appears to have originated as a means of addressing liability concerns, and to ensure that some government would be financially responsible for any damage caused by private actors. Language similar to that of Article VI first appeared in a 1962 United Nations General Assembly resolution.[44] In the 1962 version, member states "bear international responsibility" for their nationals' activities in outer space, and "activities of non-governmental entities shall require authorization and continuing supervision by the State concerned."[45] This version was the culmination of a set of competing drafts put forward by the United States and the USSR.

[44] Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, United Nations A/RES/18/1962, 18th Sess., Agenda Item 28a, Principle 5.
[45] Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space.

Originally, the USSR proposed a ban on nongovernmental activities in space, proposing that space activities be carried out "solely and exclusively by states."[46] In response, the US delegation proposed that a state bear international responsibility for a launch and be "internationally liable for personal injury, loss of life or property damage caused by such vehicle on the earth or in air space."[47] As the final version of Article VI shows, the USSR acquiesced in the presence of private actors in space, but the parties to the treaty agreed to be responsible for damages their citizens might cause.[48] Indeed, legal scholar and practitioner James Dunstan has explained that Article VI does provide guidance on which nongovernmental activities require regulation: namely, those that might expose the State Party to "international responsibility," which suggests that the drafters envisioned oversight only of those activities that might be hazardous and increase the risk of liability for the State Party whose citizens are engaging in them.[49]

III. Article VI of the Outer Space Treaty Is Not Self-Executing and Thus Is Not Enforceable against Private Actors

The following discussion explains how the doctrine of non-self-executing treaties works, and applies it, along with the criteria of the Supreme Court's *Medellin v. Texas* decision, to Article VI of the Outer Space Treaty. Like other non-self-executing treaties, the text contains language of future effect and would require policy determinations that, in accordance with US

[46] Comm. on the Peaceful Uses of Outer Space, Draft Declaration of the Basic Principles Governing the Activities of States Pertaining to the Exploration and Use of Outer Space, United Nations A/AC.105/L.2, September 10, 1962, available at http://www.unoosa.org/pdf/reports/ac105/AC105_006E-ra.pdf, quoted in P. Paul Fitzgerald, "Inner Space: ICAO's New Frontier," *Journal of Air Law and Commerce* 79, no. 1 (Winter 2014): 16–17.
[47] Letter dated December 8, 1962, from the representative of the United States of America to the Chairman of the First Committee, Draft Declaration of Principles Relating to the Exploration and Use of Outer Space, United Nations A/C.1/881, December 8, 1962, available at http://www.unoosa.org/pdf/garecords/A_C1_881E.pdf.
[48] Matters of liability were eventually further refined in Article VII of the Outer Space Treaty itself and in the Convention on International Liability for Damage Caused by Space Objects, March 29, 1972, 24 U.S.T. 2389.
[49] James E. Dunstan and Berin Szoka, "Reopening the American Frontier: Exploring How the Outer Space Treaty Will Impact American Commerce and Settlement in Space" (Testimony before the Senate Committee on Commerce, Science, & Transportation, Subcommittee on Space, Science, and Competitiveness, May 23, 2017).

separation-of-power principles, are to be made by the legislative branch of the government. The testimony of the chief negotiator and the post-ratification history for the Outer Space Treaty supports the textually based conclusion that Article VI is not self-executing. Ultimately, what this means is that US regulatory agencies may not use Article VI as a basis for denying private entities access to space unless and until Congress enacts implementing legislation.

A. How the Doctrine of Non-Self-Executing Treaties Works

Although the Constitution describes treaties as the supreme law of the land, they must be self-executing in order to be enforceable federal law in the absence of implementing legislation from Congress. As the Supreme Court has noted, "not all international law obligations automatically constitute binding federal law enforceable in United States courts."[50] The origins for this principle and a statement of how it works date back to the early 19th century case *Foster v. Neilson*, in which the Supreme Court said,

> Our Constitution declares a treaty to be the law of the land. It is consequently to be regarded in courts of justice as equivalent to an act of the Legislature whenever it operates of itself, without the aid of any legislative provision. But when the terms of the stipulation import a contract, when either of the parties engages to perform a particular act, the treaty addresses itself to the political, not the Judicial, Department, and the Legislature must execute the contract before it can become a rule for the Court.[51]

In *Foster*, the court interpreted the English version of a treaty with Spain regarding a transfer of land to the United States. The English text said that the Spanish land grants to plaintiffs "shall be ratified and confirmed to the parties in possession thereof."[52] The Supreme Court said that Congress therefore had to first enact legislation because the text of the treaty

[50] *Medellin v. Texas*, 552 U.S. 491, 128 S.Ct. at 1357.
[51] *Foster v. Neilson*, 2 Pet. 253, 315, 7 L.Ed. 415 (1829), overruled on other grounds, *United States v. Percheman*, 7 Pet. 51, 8 L.Ed. 604 (1833). When it overruled its earlier determination, the court did so because the Spanish translation of the treaty stated that title "shall remain" with the landowners, thus making the treaty self-executing. *Percheman*, 7 Pet. at 88–89.
[52] Treaty of Amity, Settlement, and Limits, U.S.-Sp., art. 8., Feb. 22, 1819, 3 U.S.T. 3, quoted in Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1655.

required further action, namely, the ratification and confirmation of the grants.[53] *Foster*, in other words, said that the treaty at issue was executory rather than executed, in that it said the titles in the land still needed to be confirmed.[54]

In *Medellin*, the president had attempted by memorandum to require state courts to abide by a decision of the International Court of Justice under the United Nations Charter. The Supreme Court relied on *Foster* when it said, in effect, that a treaty is equivalent to an act of a legislature only when it requires no additional legislation to be effective:[55] "while treaties 'may comprise international commitments . . . they are not domestic law unless Congress has either enacted implementing statutes or the treaty itself conveys an intention that it be 'self-executing' and is ratified on those terms.'"[56] This is because "once a treaty is ratified without provisions clearly according it domestic effect, . . . whether the treaty will ever have such effect is governed by the fundamental constitutional principle that '"[t]he power to make the necessary laws is in Congress; the power to execute in the President."'"[57]

Commenters analyzing *Medellin* note that the self-execution doctrine manifests in a number of different ways. Some view the doctrine as having three or even four incarnations.[58] A textual argument addresses just one.[59] Scholars such as David Sloss argue, and *Medellin* itself shows, that there is more to the self-execution doctrine than purely a question of whether a treaty

[53] Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1655.
[54] Sloss, "Taming Madison's Monster," 1716–17.
[55] *Medellin*, 552 U.S. at 505, 128 S.Ct at 1356.
[56] *Medellin*, quoting *Igartua-De La Rosa v. United States*, 417 F.2d 145, 150 (1st Cir. 2005).
[57] *Medellin*, quoting *Hamdan v. Rumsfeld*, 548 U.S. 557, 591, 126 S.Ct. 2749 (2006), quoting *Ex parte Milligan*, 4 Wall. 2, 139 (1866) (opinion of Chase, C. J.).
[58] For three incarnations, see Sloss, "Taming Madison's Monster." For four incarnations, see Carlos Manuel Vazquez, "The Four Doctrines of Self-Executing Treaties," *American Journal of International Law* 89, no. 4 (1995): 695–72.
[59] Ramsey, "Textual Approach to Treaty Non-Self-Execution."

is judicially enforceable.[60] Instead, the doctrine applies as well to relations between the legislative and executive branches, as seen both historically[61] and in *Medellin*.

Sloss proposes three doctrines of self-executing and non-self-executing treaties. They appear to turn on the question of who may or may not implement a non-self-executing treaty. Of the three doctrines Sloss proposes, the most relevant for the purposes of this paper is the one he identifies as the "congressional-executive." It is the oldest and the most historically dominant of the three,[62] and also the one applied in *Medellin*.[63] According to this doctrine, Congress must pass legislation to authorize federal executive action pursuant to a non-self-executing treaty.[64] Under this approach, the president has the authority to implement only a self-executing treaty, not a non-self-executing one.[65]

Sloss's second approach is the least relevant to this paper, but I provide it here for completeness and comparison: under the "federal-state" concept, a self-executing treaty supersedes conflicting state law without requiring the congressional passage of implementing legislation.[66] For a non-self-executing treaty, however, Congress must pass federal legislation to effect preemption. Under what Sloss terms the "political-judicial" concept, self-executing treaties are judicially enforceable but courts may not apply non-self-executing treaty provisions unless Congress has enacted legislation to implement the treaty.[67] Under the "political-judicial"

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[60] Sloss, "Taming Madison's Monster," 1695–96, citing Carlos M. Vazquez, "Four Problems with the Draft Restatement's Treatment of Treaty Self-Execution," *Brigham Young University Law Review* 2015 (2016): 1747. Sloss takes issue with a draft Restatement on Foreign Relations Law that was being prepared by the American Law Institute, citing to Restatement (Fourth) of the Foreign Relations Law of the United States: Treaties ß 106 cmt. b (American Law Institute, Discussion Draft 2015). In the time since Sloss wrote his article, however, the American Law Institute published a new draft, which, he says, contains very little on the self-execution doctrine. Sloss, "Taming Madison's Monster," 1695–96 n18.
[61] Sloss, "Taming Madison's Monster."
[62] See Sloss, 1703, § II and accompanying discussion, and 1737.
[63] Sloss, 1737.
[64] Sloss, 1696.
[65] Sloss, 1696–67.
[66] Sloss, 1696.
[67] Sloss, 1695.

approach, unlike the "congressional-executive" approach, Sloss claims that federal executive officials may implement both self-executing and non-self-executing treaties without awaiting legislative authorization to do so.[68]

The text of a treaty determines which branch must act first to implement the treaty. This is not a question of international law, but a separation-of-powers question grounded in the US Constitution.[69] Although another commenter, Michael Ramsey, focuses mainly on what Sloss calls the "political-judicial" approach—namely, whether a treaty provides a rule of decision for the courts—Ramsey's emphasis on the interpretation of the text matches that of *Medellin*. As the Constitution says, treaties are the supreme law of the land.[70] Even so, a treaty may impose an obligation that has to be carried out by a specific branch of the government.[71] The question, for Ramsey, is who gets to execute the treaty: the executive, the legislative, or the judicial branch? The text of the treaty tells us whether or not it is judicially enforceable as a self-executing treaty.[72]

Medellin held that not even the president could execute Article 94 of the United Nations Charter, which means that the most recent ruling on this topic reflects the "congressional-executive" approach, which requires congressional authorization in the form of legislation in order for the executive to implement a non-self-executing treaty.[73] This does not comport with Sloss's own categorization of the possibility of the executive being able to implement some

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[68] Sloss, 1695. This may, after *Medellin*, not be a concept with much life left in it, given that the court did not allow a president to require the states to comply with a United Nations Charter provision.
[69] Sloss, 1704, 1708, 1733.
[70] Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1639.
[71] Ramsey, 1647–48.
[72] See Diane Howard, "The Emergence of an Effective National and International Spaceport Regime of Law" (thesis in support of Doctor of Civil Law, Institute of Air and Space Law, McGill University, 2014), available at http://digitool.Library.McGill.CA:80/R/-?func=dbin-jump-full&object_id=130384&silo_library=GEN01; citing Meredith Blasingame, "Nurturing the United States Commercial Space Industry in an International World: Conflicting State, Federal, and International Law," *Mississippi Law Journal* 80 (2010): 756. Howard and Blasingame mention the provision of Article VI requiring authorization and supervision of the activities of nongovernmental entities as being non-self-executing. They do not, however, describe the analysis by which they reached their conclusions.
[73] Sloss, "Taming Madison's Monster," 1697–98.

non-self-executing treaties. Taking Ramsey's textual approach[74] and the two-step approach favored by both Ramsey and Sloss,[75] where we must look to what the treaty says and then to what the US system requires, we can see that if the president may not implement a non-self-executing treaty, neither may the FAA or other regulatory bodies.

B. Medellin*'s Criteria for Determining Whether a Treaty Is Self-Executing*

The *Medellin* court looked to the treaty text to determine that Article 94 of the United Nations Charter was not self-executing. Although Article 94 said that "each Member of the United Nations undertakes to comply with the decision of the [International Court of Justice] in any case to which it is a party," the court did not find Article 94 to be self-executing.

Medellin provides instruction on how to determine whether a treaty is self-executing. First, the fact that a treaty is self-executing should be obvious from the text of the treaty itself.[76] Second, the negotiating and drafting history and the post-ratification understanding may also serve as useful "aids" to interpretation.[77]

The text and negotiating history of Article VI—language of future effect. Determining when a treaty is to be implemented is a question of treaty interpretation and may be viewed as a matter

[74] Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1647–49.
[75] Sloss, "Taming Madison's Monster," 1704, 1708, 1717–18. See also Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1648: "But if a treaty provision calls on the United States to exercise something other than the judicial power, it does not contain a rule that U.S. courts can use to decide cases. This does not mean the provision is not part of the supreme law of the land, it means only that the provision does not require anything that is within U.S. courts' judicial power to do."
[76] *Medellin v. Texas*, 552 U.S. at 507, 128 S.Ct. at 1357.
[77] *Medellin*. Although Ramsey considers it inappropriate to rely on negotiating history to ascertain the negotiator's intent with respect to whether a treaty is self-executing or not, he does not disapprove of a court using negotiating history as evidence of a treaty's meaning, caveated with the observation that other evidence may outweigh it. Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1660.

of international law.[78] *Medellin*, like *Foster*, relied on the presence of language of future effect.[79] Although Article 94 of the United Nations Charter says that "each Member of the United Nations undertakes to comply with the decision of the International Court of Justice,"[80] the court correctly noted that this was language of future effect.[81] The United Nations Charter's requirement that each member "undertakes to comply" might suggest merely that a member will try to comply, but the court relied on its executory nature instead,[82] which meant Article 94 was non-self-executing.

The text of Article VI, stating that the activities of nongovernmental entities "shall require authorization and continuing supervision by the appropriate State Party," also contains language of future effect. Some part of a government must, in the future, require authorization and continuing supervision of private activities in outer space. The language "*shall require* authorization and . . . supervision" (emphasis added) is remarkably similar to that of the *Foster* treaty. Both the *Foster* treaty and Article VI use the term "shall" to indicate future undertakings on the part of the signatories. For Article VI, given the paucity of commercial activity related to outer space in 1967, the treaty could only, with the exception of COMSAT, apply to future activity and thus to a future legislative response. Accordingly, Article VI of the Outer Space Treaty is executory, and its requirement is one of future effect. Now the question becomes, which branch of the government may implement it?

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[78] "The executed/executory distinction involves a 'when' question: does the treaty accomplish its goal immediately upon entry into force or is future action necessary to implement the treaty?" Sloss, "Taming Madison's Monster," 1716. In *Foster*, Justice Marshall's "treaty interpretation analysis focused on an international law question: whether [the treaty] was executory or executed." Sloss, 1717.
[79] Sloss, 1722.
[80] *Medellin* 552 U.S. at 508, 128 S.Ct. at 1358.
[81] Sloss, "Taming Madison's Monster," 1722.
[82] Sloss, 1722.

The text and negotiating history of Article VI—policy decisions require congressional implementation. Because the decisions required to implement Article VI are policy decisions for the legislative branch, Congress, exercising its judgment and discretion, is the proper branch under US separation-of-powers doctrine to determine the particulars of any authorization or supervision. This includes determining which particular space activities require authorization and any continuing supervision. As *Medellin*, echoing the Constitution, said, "The power to make the necessary laws is in Congress; the power to execute in the President."[83]

Article VI contains three relevant, ambiguous terms that the drafters have left to the different countries to define as they see fit.[84] The terms are "authorization," "continuing supervision," and "activities." They each necessitate policy judgments by the legislative branch, which means the task of implementation falls to the legislative branch, and legislation must be passed before the treaty applies to private actors.[85]

Article VI says that a country must "authorize" its nationals' activities. Each country has its own processes and terminology for how it authorizes something. In the United States alone, regulated activities may be authorized by certificate, certification, approval, license, registration, waiver, or exemption.[86] In the United States, Congress determines the nature of the authorization.

The signatories to the treaty are supposed to require continuing supervision of their nationals. "Continuing" is a matter of frequency. Some agencies conduct annual inspections.

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[83] Sloss, 1722, quoting *Hamdan v. Rumsfeld*, 548 U.S. 557, 591, 126 S.Ct. 2749 (2006).

[84] A similar observation has been made elsewhere: "Although the Outer Space Treaty does not require that states implement any formal structure for authorization and continuing supervision whatsoever, a small but growing number of states have done so, and have established a procedure for the licensing of entities and/or projects." L. Tennen, "Towards a New Regime for Exploitation of Outer Space Mineral Resources," *Nebraska Law Review* 88 (2010): 802.

[85] See Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1669. Discussing a post-*Medellin* case where a treaty required that each state party "shall take appropriate measures," Ramsey notes that the court found the treaty non-self-executing because what was appropriate, among other things, was left to the discretion of each state party and because the treaty envisioned legislative implementation.

[86] See, for example, notes 2–3 above. The regulatory agencies listed there issue authorizations bearing all these different names.

Others oversee regulated activities on a daily basis. Some only show up after an accident. The frequency may not be the same, but the supervision may still be called continuous. The nature of the supervision may differ from country to country and all may comply with Article VI's call for continuing supervision. Again, we see a need for legislative judgment.

Finally, and most importantly, the treaty leaves it to each country to decide what activities require supervision and authorization. The treaty does not say *all* activities require oversight. It does not say *which* particular activity requires oversight. Rather, it leaves to each country's policymakers the decisions about where to draw the lines. And draw lines they must, so as not to waste resources,[87] unduly burden the commercial space industry, or cause confusion. For the United States, the entity that makes these determinations is the US Congress.

Because Congress has not enacted legislation regarding, for example, lunar habitats, some maintain that Article VI itself prohibits unauthorized and unsupervised private activities in space. From a textual perspective, Article VI does not. It makes the United States "bear international responsibility" for those activities, but that does not constitute a prohibition. The provision also obligates the United States to authorize and continuously supervise some activity, but it does not anywhere say that private activities may not occur, or even that they may not occur unless they are authorized and supervised. After all, as Dunstan suggested,[88] Article VI contains a remedy for a State Party's failure to regulate: namely, that the State Party will be internationally responsible for any damage its nongovernmental entities might cause.

[87] It is my own view that Article VI is structured so that a country need not expend resources regulating frivolous, mundane, or nonhazardous activities. If Article VI truly meant that all activities had to be overseen, where would oversight stop? Life is full of activities, from brushing one's teeth to playing a musical instrument, which take place now without either federal authorization or continuing federal supervision. Just because those activities take place in outer space does not mean they should suddenly require oversight. Policy considerations of safety, interference, or other concerns may drive the need for regulation. An over-reading of Article VI should not.

[88] Dunstan and Szoka, "Reopening the American Frontier."

Accordingly, Congress could pursue this suggestion to its logical conclusion and only regulate activities that increase the liability exposure of the United Sates.

Intent of the treaty negotiators. *Medellin* describes a treaty's negotiation and drafting history as useful aids to a treaty's interpretation.[89] Although Ramsey acknowledges that *Medellin* used intent to aid its analysis of the text, he cautions that intent is only relevant as evidence for textual interpretation.[90] Even if the text of Article VI were not so clear, the history of the Senate's confirmation of the Outer Space Treaty supports the text. Indeed, Ambassador Goldberg, the chief negotiator for the United States, when testifying to the Senate, stated that not all provisions of the treaty were self-executing.[91] More significantly, the following exchange reveals, albeit with some legwork, that Goldberg did not consider Article VI itself self-executing:

> Mr. Goldberg: Some provisions are self-executing.
> Senator Gore: Some?
> Mr. Goldberg: But only those provisions which I have indicated are self-executing.[92]

Although he had identified specific treaty provisions as either self-executing or non-self-executing, Ambassador Goldberg never indicated that Article VI was self-executing, which means that he recognized that the provision would not be enforceable domestic law absent implementing legislation from Congress.

In contrast to Ambassador Goldberg's testimony, Paul Dembling, NASA's general counsel and a member of the US delegation at the time of the treaty's negotiation, stated that the requirement that a signatory authorize and supervise its nationals meant that "Article VI would prohibit, as a matter of treaty obligation, strictly private, unregulated activity in outer space or on

[89] *Medellin v. Texas*, 552 U.S. at 507, 128 S.Ct. at 1357.
[90] Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1660.
[91] Goldberg testifies that Article I is not self-executing and Articles IV and V are. Treaty on Outer Space: Hearing before the Committee on Foreign Relations of the U.S. Senate, 90th Cong. 1, 9, 12, 29, 33, 35 (1967).
[92] Treaty on Outer Space: Hearing before the Committee on Foreign Relations of the U.S. Senate, 35.

celestial bodies even at a time when such private activity becomes most common-place."[93] Dembling did not address the question of whether Article VI was self-executing, however, and his position fails as a matter of logic. Even if Article VI purported to prohibit private activity—which it does not—Congress would have to implement any prohibition, and it has not done so. Additionally, Dembling's view constitutes an extratextual statement at odds with the text of Article VI, Ambassador Goldberg's testimony, and the *Medellin* criteria, and so should receive little weight. As Ramsey notes, extratextual statements may be evidence, but they may be outweighed by other evidence.[94]

The most that Article VI's drafting history shows is a concern for financial accountability. The US and Soviet proposals discussed in Section IIB displayed concerns over liability. The USSR acquiesced to the presence of private actors in space once these actors were to be authorized and continuously supervised, and once each state party agreed to be internationally responsible. Again, this suggests that the United States might want to regulate activities for which it could face liability exposure, if regulation would reduce that exposure.

Post-ratification history. Medellin encourages review of a treaty's post-ratification history as an aid to determining whether the treaty is self-executing. Different countries have taken different approaches to implementing Article VI. The United Kingdom[95] and France[96] have passed implementing legislation requiring the regulation of all space activities. Twenty-four other

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[93] Paul G. Dembling and Daniel M. Arons, "The Evolution of the Outer Space Treaty," *Journal of Air Law and Commerce* 33 (1967): 419–56, 437.
[94] Ramsey, "Textual Approach to Treaty Non-Self-Execution," 1660.
[95] Outer Space Act 1986, c. 38 (Gr. Brit.), http://www.legislation.gov.uk/ukpga/1986/38; Science and Technology Committee, 2007: A Space Policy, 2006–07, HC 66-I, http://www.publications.parliament.uk/pa/cm200607/cmselect/cmsctech/66/66i.pdf (UK).
[96] French Space Operations Act (2008), Loi 2008-518 du 3 juin 2008 relative aux operations spatiales [Law 2008-518 of June 3, 2008 on Space Operations], Journal Officiel de la Republique Francaise [J.O.] [Official Gazette of France], June 4, 2008, p. 9169.

countries have passed space legislation of some kind.[97] The United States has passed implementing legislation using a more limited approach. Congress has always identified what activity it wanted regulated, and it has done so with the proper level of specificity that due process considerations of notice and transparency require. Congress required the FCC to license satellite transmissions.[98] It required the Department of Transportation (DOT) to license the launch of launch vehicles,[99] which authority, in 1994, the DOT delegated to the FAA. Later, Congress required the DOT and the FAA to license the reentry of reentry vehicles as well. Congress also mandated that the seemingly benign activity of taking pictures of Earth—"remote sensing"—requires regulation, too. Each time Congress determined that something required oversight, whether for reasons of safety, national security, or interference, it identified the activity in question, and it did so with sufficient clarity that persons of ordinary intelligence could tell what was forbidden and what was required. So far Congress has not decided that other activities require regulation.[100]

When Congress does not act, that lack of action may reflect a deliberate choice.[101] If Congress chooses not to regulate a particular activity, it need not mean that the US is in non-

[97] Paul Stephen Dempsey, "National Laws Governing Commercial Space Activities: Legislation, Regulation, and Enforcement," *Northwestern Journal of International Law and Business* 36, no. 1 (Winter 2016): 16–18.
[98] Federal Communications Act of 1934.
[99] 51 U.S.C. ch. 509.
[100] Claims that the US Commercial Space Launch Competitiveness Act (Pub. L. No. 114-90, 129 Stat. 704 (2015)) requires authorization and continuing supervision fail under a close reading of the law. Title IV of the act states that the president shall promote the rights of US citizens to engage in commercial exploration for and recovery of space resources subject to authorization and continuing supervision by the federal government. The law, in other words, charges the president with promoting authorization and supervision for mining, but does not mandate such authorization and supervision. This charge dovetails well with a separate portion of the act requiring the executive branch to study and recommend a regulatory regime for new space activities. The executive branch prepared and submitted a report requiring the regulation of all space activities, and Congress did not adopt the recommendations. The American Space Commerce Free Enterprise Act, H.R. 2809, proposed in 2017 by the House Committee on Science, Space, and Technology, would require the regulation of more activities in outer space, although not all, and thus not as many as proposed by OSTP's Section 108 report.
[101] See, for example, *Al-Bihani v. Obama*, 619 F.3d 1, 41 (D.C. Cir. 2010) (Kavanaugh, conc.): "When Congress does not act to incorporate those norms into domestic U.S. law, such non-incorporation presumably reflects a deliberate congressional choice."

compliance with the Outer Space Treaty, but that Congress has not found that the activity is one that requires regulation. The activity may not expose the United States to a risk of liability, or may not be of sufficient concern to justify the expenditure of government resources. Space tourism appears to provide an example of a space activity that causes no concern. One finds no news stories or congressional hearings addressing the need for space tourists to obtain "tourism authorizations." Likewise, SpaceX's Dragon vehicle engages in transportation on orbit with no authorization. Article VI says neither that all activities or that any particular activity shall require authorization and continuing supervision. Accordingly, congressional silence on a non-self-executing treaty means that private actors should face no barriers in space, and the agencies of the executive branch should not seek to impose any.

It would not defy logic to conclude that Congress has finished carrying out its obligations under Article VI. Asteroid mining, the activity that provokes the most interest, will take place so far away that it appears unlikely to create a hazard to anyone. Satellite servicing might be a different story, because the speeds involved might be conducive to hazards, but even in that case, if Congress were to decide that all hazards could be addressed by contract, a satellite servicing operator might not merit regulation.

In short, one of Earth's larger spacefaring nations, the United States, has taken a measured approach to regulation. Each time it determined that a space activity required regulation, Congress had the opportunity to require regulation of all space activities. It did not do so. Instead, it has required authorization for certain activities, but not others, and not all. This post-ratification history is consistent with the conclusion that not all space activities require authorization merely because of Article VI.

C. Conclusion: The Implications of Article VI Not Being Self-Executing

Because Article VI is not self-executing, it is not, pursuant to *Medellin*, enforceable federal law. This means that the executive branch, through its regulatory agencies, including the FAA, the FCC, and the National Oceanic and Atmospheric Administration, should not attempt to enforce it—either by prohibiting private space activities (such as lunar roving) on the grounds that the activity requires no authorization or supervision, or by attempting to regulate such private activities. In other words, the regulatory agencies should not refuse to issue their own necessary authorizations for launch, reentry, satellite transmissions, or remote sensing, or deny a favorable payload determination, because another activity the operator proposes might not have federal oversight.

In *Medellin*, the president attempted to enforce an International Court of Justice judgment against the states through a "Memorandum to the Attorney General," determining that he would have the states give effect to the decision of the International Court of Justice.[102] As discussed above, and as Senator Ted Cruz has since emphasized, the Supreme Court clarified that the president could not use a non-self-executing treaty to unilaterally make treaty obligations binding on domestic courts.[103] Similarly, with Article VI, the regulatory agencies may not unilaterally impose what they may view as treaty obligations on the private sector when Congress has yet to act.

Nor may the FAA attempt to use its general responsibility for payload review to stop private operators, for three reasons. Just as the president's constitutional role in foreign policy does not give him the power to implement a non-self-executing treaty, the FAA's statutory foreign policy authority also fails to provide the FAA the ability to engage in unilateral lawmaking. Additionally, legislative history makes it clear that Congress did not intend the FAA

[102] Memorandum for the Attorney General, "Compliance with the International Court of Justice in *Avena*," February 28, 2005, http://www.refworld.org/pdfid/429c2fd94.pdf.
[103] *Medellin v. Texas*, 552 U.S. at 529, 128 S.Ct. at 1371; see also Ted Cruz, "Limits on the Treaty Power," *Harvard Law Review Forum* 127 (2014): 93.

to exercise regulatory authority over more than launch and reentry. Finally, for the FAA to deny a private operator access to space would usurp Congress's role in making policy determinations such as what activities merit regulation and which agency should oversee those activities.

Congress charges the FAA under 51 U.S.C. § 50904 with conducting payload reviews before issuing a launch license. The FAA may prevent the payload's launch or reentry under two conditions: (1) if the payload's operation requires no authorization, license, or permit, and (2) if it would jeopardize, among other things, a foreign policy interest of the United States.[104] Most payloads possess, at the very least, an authorization from the FCC for any necessary transmissions to the United States, thus making unnecessary any FAA consideration of foreign policy interests. Nonetheless, here, too, *Medellin* proves instructive, and its consideration is necessary in light of the FAA's Moon Express position.

Although the Supreme Court, of course, recognized that the Constitution vests the executive with foreign policy decisions, such considerations did not allow the court to set aside first principles, and it found no authority for the president to engage in unilateral lawmaking.[105] If the president's constitutional role in foreign policy does not give him the ability to unilaterally enforce a treaty when Congress has not passed the necessary legislation, the FAA should not treat its foreign policy authority as vesting it with unilateral legislative powers either. Next, when Congress granted the FAA authority to authorize and supervise the reentry of a reentry vehicle, it emphasized that the FAA was not to exercise its authority on orbit,[106] further clarifying that Congress envisioned unregulated activities for which the FAA should not deny access to space. Moreover, were the FAA to deny an operator access to space on the grounds of Article VI, it would be taking on the role of regulator—but deciding who that regulator should be is a decision

[104] 51 U.S.C. § 50904.
[105] *Medellin v. Texas*, 552 U.S. at 524, 128 S.Ct. at 1367–68.
[106] H.R. Rep. 105-347 (1999) accompanying H.R. 1702.

that Congress makes. Indeed, indications so far suggest that Congress may have a different agency fill that role.[107] More importantly, Congress may have different views than the FAA about what activities require regulation, so the FAA and the rest of the executive branch must wait for Congress's determination to learn what they are.

As a matter of policy, Congress may determine that there are good reasons to expend government resources and taxpayer dollars on regulating a particular activity. Hypothetically, Congress could say that robotic mining of rocks in space really far away does not require regulation because no one lives on those rocks, they have no visitors, and no one will get hurt by the mining. Or it could say that bringing platinum-group minerals back to Earth will wreak havoc on the economy, and decide to set up an agency to oversee pricing. Even if Congress ignores asteroid mining itself, it might forbid the reentry of anything large enough to make a crater the size of the Yucatan. There are a number of considerations that may lead to legislation and regulatory oversight. But they are not in Article VI of the Outer Space Treaty.

Just as there are serious activities that someone may argue require oversight, there are a host of other activities that don't. One hears no lamentations over the lack of authorization of space tourists. Yet space tourists exist now. Lunar habitats and space mining do not.

In short, Article VI leaves at least three decisions to each country that signed the Outer Space Treaty: What form should an authorization take? How frequent must the continuing supervision be? And what activities require any authorization at all? Because in the United States these are questions left to the policy judgment of the legislative branch, the other branches may not substitute their own policy determinations about what activities require Article VI authorization and supervision.

[107] See H.R. 2809, Sec. 3 (proposing the Department of Commerce).