

INTRODUCTORY NOTE TO THE ARTEMIS ACCORDS
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[September 13, 2020]

The Importance of the Accords

The Artemis Accords (the Accords) reproduced below were signed on September 13, 2020, by the administrator of the U.S. space agency, NASA, and seven other space agencies.¹ The intervening years since then have underscored their importance: they may give a boost to the development of the legal regime of outer space exploration and use as defined by the existing treaty framework,² while supporting the U.S. interpretation of the non-appropriation principle, or they may upset the existing legal regime of Outer Space, leading to its fragmentation by abandoning multilateralism. This introductory note highlights those aspects of the Accords that may affect the edifice of the international law relating to Outer Space, even if the Accords themselves are not legally binding, as explained briefly below.

Scope and Participation

The geographic scope is peculiar: it comprises the Moon, Mars, comets, and asteroids, including their surface and subsurface, as well orbits of the Moon or Mars, together with the Lagrangian points for the Earth–Moon system, and the transit trajectories between these celestial bodies and locations (Section 1). Other celestial bodies and orbits of the Solar System or beyond do not fall within the territorial scope of the Accords.

The material scope is limited too, as it only extends to civil space activities conducted by “civil space agencies . . . with the intention of advancing the Artemis Program,”³ which aims to bring “the first woman and next man to the Moon” fifty-five years after the “small step” of Astronaut Neil Armstrong. At a later phase, the program should reach a continuous presence on the Moon and, still later, reach Mars.

The Accords are open to accession by any state. Therefore, the obligations of the signatories towards each other do not presume alliance or onerous cooperation. The regulation of actual cooperation and the issues related to the delicate questions of liability, intellectual property, transfer of goods, and technical data are left to bilateral or multilateral instruments to be adopted. As of May 15, 2023, twenty-four states have joined the Accords.⁴ It is, however, important to note that China’s accession is prevented by the U.S. internal legal regime.⁵

The Legal Character of the Accords

The Accords do not constitute a treaty. That is unequivocal from Section 13, which states that the Accords are “not eligible for registration under Article 102 of the Charter of the United Nations” and confirmed by Section 1 stating that the Accords “represent a political commitment.”

Nor do they, in their entirety, reflect existing or emerging customary international law, as several states “whose interests are specifically affected” (to use the words of the ICJ in the *North Sea Continental Shelf Case*)⁶ do not recognize certain elements of the envisaged practice as a reflection of custom.

Academic commentaries have classified the principles into three categories:⁷

1. Principles and norms reflecting existing international norms (Sections 1 and 7: Benefit of humankind; Section 3: Exclusively peaceful purposes, accordance with international law; Sections 4 and 8: Transparency and sharing of scientific information; Section 6: Assistance/rescue in outer space; Section 7: Registration; Section 12: Preventing and mitigating space debris).
2. Principles and norms that are claimed to simply refine and operationalize existing rules (Section 5: Interoperability, Section 10: Space resources, Section 11: Safety zones—deconfliction of space activities).
3. Essentially novel elements (Section 9: Outer Space heritage).

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Below, we present in detail the three principles of the agreement that caused debate in the international community: space resources, safety zones, and space heritage.

Space Resources

Arguably the most controversial section of the Accords is the provision on the use of space resources. According to Section 10, “the utilisation of space resources can benefit humankind by providing critical support for safe and sustainable operations.” Moreover, the “[s]ignatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty.”

The basis of the debate is that the wording of the 1967 Outer Space Treaty (OST), ratified by 112 states as of March 2023, including all space-faring nations, leaves room for different interpretations. According to Article II, “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”

The U.S. position has been consistent: the OST does not ban the exploitation of space resources. Exploitation is a freedom guaranteed by Article I of the OST. The Commercial Space Launch Competitiveness Act of 2015 stipulates that the “United States citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.”⁸ The executive order of president Donald J. Trump issued in April 2020⁹ declares that “outer space is a legally and physically unique domain of human activity, and the United States does not view it as a global commons. Accordingly, it shall be the policy of the United States to encourage international support for the public and private recovery and use of resources in outer space, consistent with applicable law.”

In line with this position, the U.S. delegation noted in its submission to the 62nd session of the United Nations Committee of Peaceful Use of Outer Space (UN COPUOS) Legal Subcommittee in March 2023 that the prohibition of national appropriation articulated in Article II of the OST does not “limit ownership to be exercised by States or private entities over those natural resources that have been removed from their ‘place’ on or below the surface of the Moon or other celestial bodies. Such removal is permitted by Article I of the Outer Space Treaty, which provides that ‘outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States’.”¹⁰

This position is subject to scrutiny. One may note the difference between exploration and use on the one hand, and exploitation on the other. The first actually refers to the “province of all mankind” idea as reflected in Article I of the OST and essentially calls for international cooperation to benefit all states, especially the developing states as expressed in the pertinent UN General Assembly resolution.¹¹ The second, exploitation, refers to economically viable utilization, including purely commercial activities. Views on the permissibility of the second vary. As a leading expert noted, “Outer space being a ‘global commons,’ a state cannot without further ado use its national law to protect private (and public) business interests related to extraterrestrial mining activities.”¹²

Critics of the U.S. position also refer to the Moon Agreement, which provides that exploitation of space resources is only possible if the state parties establish an international regime that guarantees the orderly, rational, and safe operations and assures, inter alia, the equitable sharing by all state parties in the benefits derived from exploitation, while special consideration is given to the needs of developing countries.¹³ The importance of these rules is reduced by the fact that the agreement had only eighteen parties in March 2023, not including a single space-faring nation. Three of the parties to the Moon Agreement (Mexico, Saudi Arabia, and Australia) signed the Artemis accords.¹⁴ While Australia does not see a conflict,¹⁵ Saudi Arabia notified the Secretary-General of the United Nations of its withdrawal from the Moon Agreement in January 2023.¹⁶

Safety Zones: “Deconfliction of Space Activities”

The Accords aim at avoiding harmful interference. Affirming Articles IX and XI of the OST, the Signatories commit to refrain from any intentional actions that may create harmful interference with each other’s use of outer space and to provide each other with necessary information regarding the location and nature of space-based activities. Novel is the introduction of the idea of a “safety zone” that is more than the usual “keep out zones,” such as those applied

around the International Space Station.¹⁷ In fact, safety zones enclosing parts of the freely accessible *res communis omnium usus* territories exist—for example, according to Article 60 of UNCLOS, allowing states to create a 500 meter radius safety zone around installations in the Exclusive Economic Zone, where otherwise the freedom of navigation ought to be unrestricted.

According to the Accords, a safety zone is an area in which “nominal operations of a relevant activity or an anomalous event could reasonably cause harmful interference” with the operation of the state declaring the safety zone or of an actor licensed by the state.¹⁸ It is worth mentioning that the safety zone concept was first elaborated by The Hague Space Resources Governance Working Group¹⁹ in the Building Blocks project in 2019, considering safety zones as an effective tool to avoid harmful interference, in line with the principle of non-appropriation.²⁰ The concept of the safety zone is not immune to criticism.²¹ Its size, scope and temporal dimensions are indeterminate and limited only by the very vague terms of “nature of the operation,” reasonability, and commonly accepted scientific and engineering principles. Safety zones are envisaged for indeterminate duration until the operation ceases. These features may lead to conflict with the requirement of the OST to non-appropriate territories and resources by use.

Space Heritage

Section 9 of the Accords prescribing that the signatories preserve outer space heritage, which comprises “historically significant human or robotic landing sites, artifacts, spacecraft, and other evidence of activity on celestial bodies” is not without precursors. NASA issued very detailed recommendations in 2011 on *How to Protect and Preserve the Historic and Scientific Value of U.S. Government Lunar Artifacts*,²² and the U.S. Congress adopted the One Small Step to Protect Human Heritage in Space Act²³ in 2020, noting that the landing sites are the first archaeological sites with human activity that are not on Earth that provide evidence of the first achievements of humankind in the realm of space travel and exploration and contain artifacts and other evidence of human exploration activities that remain a potential source of cultural, historical, archaeological, anthropological, scientific, and engineering knowledge.²⁴ They should not be interfered with and should be protected by rules proposed in the NASA recommendations, including exclusion zones and prohibitions of close overflights.

The critical feature of the preservation regime to emerge is that it may be seen as a “U.S.-led attempt to protect space artifacts as a subterfuge for securing indefinite rights over lunar territory, and perhaps even creating a mechanism to ‘plant the flag’ and claim additional territory in the future under the guise of preservation and protection of lunar sites and artifacts”—as noted by the Office of Science and Technology Policy of the U.S. President in 2018.²⁵

Multilateralism

Some states, such as the Russian Federation,²⁶ believe that the questions of the peaceful use of outer space should be dealt with by multilateral fora, namely within the UN COPUOS. On the initiative of eight member states of the COPUOS,²⁷ the Legal Subcommittee created a Working Group including Artemis signatories with a view to develop a set of principles for space resource exploitation and to recommend next steps, which might include the development of international norms.²⁸ This is in line with the intention of the signatories of the Accords who, according to Section 10, “intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to the extraction and utilization of space resources, including efforts at the COPUOS.”²⁹

It seems to be clear that, despite the growing interest, most of the states do not wish to urge the adoption of binding rules at this early phase,³⁰ but as Philippe Baptiste, president of the French space agency, the National Centre for Space Studies (CNES), noted at the first meeting of the Signatories held in September 2022, “the principles discussed or the ideas discussed within the Artemis Accords should be the basis for later discussions in the UN framework.”³¹

Conclusion

The Artemis Accords, despite being only a political statement, generated intense debate in the international community. While they catalyzed the discourse under the auspices of the United Nations on legal aspects of space resource

exploitation, they face criticism for turning away from multilateralism, which can lead to the fragmentation of international space law.

Another ambivalence is in the duality of confirming several basic principles of international space law and at the same time adopting the particular U.S. interpretation of Article II of the OST allowing and promoting commercial exploitation of space resources without assuring guarantees foreseen by the Moon Agreement.

While the signatories explicitly aim to use the experiences of their cooperation in the work undertaken in the UN COPUOS, the Accords do not call for a more detailed, universal binding legal regime governing the exploration and exploitation of the celestial bodies. Although such a regime may yet be premature, an assurance that future exploitation of this province of all humankind would be carried out in the interest of all countries could have been included.

Finally, some may note the lack of principles on the protection of the space environment beyond the issue of space debris and protection of landing sites, as well as the question of liability for damages caused during future missions or the dialogue with the ideas of the common heritage of humankind.

The Accords may resemble Galatea or Golem: either they will serve as a catalyst for legal development in this important area or they will lead to the fragmentation of space law.

ENDNOTES

- 1 Australia, Canada, Italy, Japan, Luxembourg, United Arab Emirates, United Kingdom. The Accords are available at <https://www.nasa.gov/specials/artemis-accords/index.html>.
- 2 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Jan. 27, 1967, 610 U.N.T.S. 205, 18 U.S.T. 2410; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 672 U.N.T.S. 119, 19 U.S.T. 7570; Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 961 U.N.T.S. 187, 24 U.S.T. 2389; Convention on Registration of Objects Launched into Outer Space, Nov. 12, 1975, 1023 U.N.T.S. 15, 28 U.S.T. 695; Agreement governing the Activities of States on the Moon and Other Celestial Bodies, 1363 U.N.T.S. 21, Dec. 5, 1979, adopted in Resolution 34/68 [hereinafter Moon Agreement].
- 3 See the updated Artemis program, https://www.nasa.gov/sites/default/files/atoms/files/artemis_plan-20200921.pdf.
- 4 For the current list of Signatories, see <https://www.nasa.gov/specials/artemis-accords/index.html>.
- 5 See "Wolf Amendment," Pub. L. No. 117-103, § 526, 136 Stat. 49 (2022).
- 6 North Sea Continental Shelf (Ger. v. Den.; Ger. v. Neth., Judgment, 1969 I.C.J. Rep. p. 3.
- 7 Our categorization relies on, but does not coincide with, Delplano's categories. Rossana Delplano, *The Artemis Accords: Evolution or revolution in International Space Law?* 70. Int'l & Comp. L.Q. 799 (2021).
- 8 U.S. Commercial Space Launch Competitiveness Act, Pub. L., 114-90, Title IV (2015).
- 9 *Encouraging International Support for the Recovery and Use of Space Resources*, <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-encouraging-international-support-recovery-use-space-resources>.
- 10 United States—*Input to the Working Group on Legal Aspects of Space Resource Activities* (Mar. 21, 2023), UN COPUOS, U.N. Doc. A/AC.105/C.2/2023/CRP.37.
- 11 *Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries*, G.A. Res. 51/122 (Dec. 13, 1996).
- 12 Fabio Tronchetti, *Legal aspects of space resource utilization*, in HANDBOOK ON SPACE LAW 791 (Frans von der Dunk & Fabio Tronchetti, 2015).
- 13 Moon Agreement, *supra* note 2, arts. 11(5) and (7).
- 14 *Status of International Agreements relating to activities in outer space as at 1 January 2022*, UN Doc. A/AC.105/C.2/2022/CRP.10.
- 15 UNOOSA, Australia – *Input to the Working Group on Legal Aspects of Space Resource Activities*, UN Doc. A/AC.105/C.2/2023/CRP.7 (Mar. 20, 2023), p. 6.
- 16 Reference of the depositary notification: C.N.4.2023.TREATIES-XXIV.2.
- 17 Lucas Mallowan, Lucien Rapp, and Maria Topka, *Reinventing treaty compliant 'safety zones' in the context of space sustainability*, 8 J. SPACE SAFETY ENGINEERING 11 (2021).
- 18 Artemis Accords, § 11, ¶¶ 6–7.
- 19 The Hague Space Resources Governance Working Group Information provided by the Netherlands, UN Doc. A/AC.105/C.2/2018/CRP.18 (Apr. 12, 2018).
- 20 The Hague Space Resources Governance Working Group, *Building Blocks for the Development of an International Framework on Space Resources Activities*, art. 11.3 (Nov. 2019), <https://www.universiteitleid.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/lucht-en-ruimterecht/space-resources/bb-thissrwg-cover.pdf>.
- 21 See Mallowan et al. *supra* note 17 with further references.

- 22 NASA's Recommendations to Space-Faring Entities: How to Protect and Preserve the Historic and Scientific Value of U.S. Government Lunar Artifacts (July 20, 2011), https://www.nasa.gov/pdf/617743main_NASA-USG_LUNAR_HISTORIC_SITES_RevA-508.pdf.
- 23 Pub. L. 116–275, 134 Stat. 3359.
- 24 *Id.* § 2(7).
- 25 Office of Science and Technology Policy, *Protecting & preserving Apollo program lunar landing sites & artifacts in accordance with the NASA transition authorization act of 2017* (March 2018), <https://csps.aerospace.org/sites/default/files/2021-08/Protecting%20Lunar%20Sites%20OSTP%20report%20Mar18.pdf>.
- 26 UN Office for Outer Space Affairs (UNOOSA), *Russian Federation—Input to the Working Group on Legal Aspects of Space Resource Activities*, U.N. Doc. A/AC.105/C.2/2023/CRP.20 (Mar. 20, 2023), p. 4.
- 27 Austria, Belgium, Czech Republic, Finland, Germany, Greece, Slovakia, and Spain.
- 28 UNOOSA, *Report of the Committee on the Peaceful Uses of Outer Space*, U.N. Doc. A/76/20 (Oct. 21, 2021), Annex II, A. 3. (d)–(e).
- 29 Artemis Accords, § 10, ¶ 4.
- 30 "[T]here is neither a need nor a practical basis to create a further elaborated international regime for space resource utilization activities." UNOOSA *Initial Submission by the Delegation of the United States of America to the United Nations Committee on the Peaceful Uses of Outer Space Legal Subcommittee Working Group on the Legal Aspects of Space Resource Activities*, U.N. Doc. A/AC.105/C.2/2023/CRP.37 (March 2023).
- 31 Jeff Foust, *Artemis Accords Signatories Hold First Meeting*, SPACE NEWS (Sept. 21, 2022), <https://spacenews.com/artemis-accords-signatories-hold-first-meeting/>.

THE ARTEMIS ACCORDS*
[September 13, 2020]

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PRINCIPLES FOR COOPERATION IN THE CIVIL EXPLORATION AND USE OF THE MOON, MARS, COMETS, AND ASTEROIDS FOR PEACEFUL PURPOSES

*This text was reproduced and reformatted from the text available at the NASA website (visited April 12, 2023), <https://www.nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf>.

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The Signatories to these Accords;

RECOGNIZING their mutual interest in the exploration and use of outer space for peaceful purposes, and **UNDER-SCORING** the continuing importance of existing bilateral space cooperation agreements;

NOTING the benefit for all humankind to be gained from cooperating in the peaceful use of outer space;

USHERING in a new era of exploration, more than 50 years after the historic Apollo 11 Moon landing and more than 20 years after the establishment of a continuous human presence aboard the International Space Station;

SHARING a common spirit and the ambition that the next steps of humanity's journey in space inspire current and future generations to explore the Moon, Mars, and beyond;

BUILDING upon the legacy of the Apollo program, which benefited all of humankind, the Artemis program will land the first woman and next man on the surface of the Moon and establish, together with international and commercial partners, the sustainable human exploration of the solar system;

CONSIDERING the necessity of greater coordination and cooperation between and among established and emerging actors in space;

RECOGNIZING the global benefits of space exploration and commerce;

ACKNOWLEDGING a collective interest in preserving outer space heritage;

AFFIRMING the importance of compliance with the *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, opened for signature on January 27, 1967 ("Outer Space Treaty") as well as the *Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space*, opened for signature on April 22, 1968 ("Rescue and Return Agreement"), the *Convention on International Liability for Damage Caused by Space Objects*, opened for signature on March 29, 1972 ("Liability Convention"), and the *Convention on Registration of Objects Launched into Outer Space*, opened for signature on January 14, 1975 ("Registration Convention"); as well as the benefits of coordination via multilateral forums, such as the United Nations Committee on the Peaceful Uses of Outer Space ("COPUOS"), to further efforts toward a global consensus on critical issues regarding space exploration and use; and

DESIRING to implement the provisions of the Outer Space Treaty and other relevant international instruments and thereby establish a political understanding regarding mutually beneficial practices for the future exploration and use of outer space, with a focus on activities conducted in support of the Artemis Program;

COMMIT to the following principles:

SECTION 1 - PURPOSE AND SCOPE

The purpose of these Accords is to establish a common vision via a practical set of principles, guidelines, and best practices to enhance the governance of the civil exploration and use of outer space with the intention of advancing the Artemis Program. Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to increase the safety of operations, reduce uncertainty, and promote the sustainable and beneficial use of space for all humankind. The Accords represent a political commitment to the principles described herein, many of which provide for operational implementation of important obligations contained in the Outer Space Treaty and other instruments.

The principles set out in these Accords are intended to apply to civil space activities conducted by the civil space agencies of each Signatory. These activities may take place on the Moon, Mars, comets, and asteroids, including their surfaces and subsurfaces, as well as in orbit of the Moon or Mars, in the Lagrangian points for the Earth-Moon system, and in transit between these celestial bodies and locations. The Signatories intend to implement the principles set out in these Accords through their own activities by taking, as appropriate, measures such as mission planning and contractual mechanisms with entities acting on their behalf.

SECTION 2 - IMPLEMENTATION

1. Cooperative activities regarding the exploration and use of outer space may be implemented through appropriate instruments, such as Memoranda of Understanding, Implementing Arrangements under existing Government-to-Government Agreements, Agency-to-Agency arrangements, or other instruments. These instruments should reference these Accords and include appropriate provisions for implementing the principles contained in these Accords.

(a) In the instruments described in this Section, the Signatories or their subordinate agencies should describe the nature, scope, and objectives of the civil cooperative activity;

(b) The Signatories' bilateral instruments referred to above are expected to contain other provisions necessary to conduct such cooperation, including those related to liability, intellectual property, and the transfer of goods and technical data;

(c) All cooperative activities should be carried out in accordance with the legal obligations applicable to each Signatory; and

(d) Each Signatory commits to taking appropriate steps to ensure that entities acting on its behalf comply with the principles of these Accords.

SECTION 3 – PEACEFUL PURPOSES

The Signatories affirm that cooperative activities under these Accords should be exclusively for peaceful purposes and in accordance with relevant international law.

SECTION 4 – TRANSPARENCY

The Signatories are committed to transparency in the broad dissemination of information regarding their national space policies and space exploration plans in accordance with their national rules and regulations.

The Signatories plan to share scientific information resulting from their activities pursuant to these Accords with the public and the international scientific community on a good-faith basis, and consistent with Article XI of the Outer Space Treaty.

SECTION 5 – INTEROPERABILITY

The Signatories recognize that the development of interoperable and common exploration infrastructure and standards, including but not limited to fuel storage and delivery systems, landing structures, communications systems, and power systems, will enhance space-based exploration, scientific discovery, and commercial utilization. The Signatories commit to use reasonable efforts to utilize current interoperability standards for space-based infrastructure, to establish such standards when current standards do not exist or are inadequate, and to follow such standards.

SECTION 6 – EMERGENCY ASSISTANCE

The Signatories commit to taking all reasonable efforts to render necessary assistance to personnel in outer space who are in distress, and acknowledge their obligations under the Rescue and Return Agreement.

SECTION 7 – REGISTRATION OF SPACE OBJECTS

For cooperative activities under these Accords, the Signatories commit to determine which of them should register any relevant space object in accordance with the Registration Convention. For activities involving a non-Party to the Registration Convention, the Signatories intend to cooperate to consult with that non-Party to determine the appropriate means of registration.

SECTION 8 – RELEASE OF SCIENTIFIC DATA

1. The Signatories retain the right to communicate and release information to the public regarding their own activities. The Signatories intend to coordinate with each other in advance regarding the public release of information that relates to the other Signatories' activities under these Accords in order to provide appropriate protection for any proprietary and/or export-controlled information.
2. The Signatories are committed to the open sharing of scientific data. The Signatories plan to make the scientific results obtained from cooperative activities under these Accords available to the public and the international scientific community, as appropriate, in a timely manner.
3. The commitment to openly share scientific data is not intended to apply to private sector operations unless such operations are being conducted on behalf of a Signatory to the Accords.

SECTION 9 – PRESERVING OUTER SPACE HERITAGE

1. The Signatories intend to preserve outer space heritage, which they consider to comprise historically significant human or robotic landing sites, artifacts, spacecraft, and other evidence of activity on celestial bodies in accordance with mutually developed standards and practices.
2. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to preserving outer space heritage.

SECTION 10 – SPACE RESOURCES

1. The Signatories note that the utilization of space resources can benefit humankind by providing critical support for safe and sustainable operations.
2. The Signatories emphasize that the extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities. The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty, and that contracts and other legal instruments relating to space resources should be consistent with that Treaty.

3. The Signatories commit to informing the Secretary-General of the United Nations as well as the public and the international scientific community of their space resource extraction activities in accordance with the Outer Space Treaty.
4. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to the extraction and utilization of space resources, including through ongoing efforts at the COPUOS.

SECTION 11 – DECONFLICTION OF SPACE ACTIVITIES

1. The Signatories acknowledge and reaffirm their commitment to the Outer Space Treaty, including those provisions relating to due regard and harmful interference.
2. The Signatories affirm that the exploration and use of outer space should be conducted with due consideration to the United Nations Guidelines for the Long-term Sustainability of Outer Space Activities adopted by the COPUOS in 2019, with appropriate changes to reflect the nature of operations beyond low-Earth orbit.
3. Consistent with Article IX of the Outer Space Treaty, a Signatory authorizing an activity under these Accords commits to respect the principle of due regard. A Signatory to these Accords with reason to believe that it may suffer, or has suffered, harmful interference, may request consultations with a Signatory or any other Party to the Outer Space Treaty authorizing the activity.
4. The Signatories commit to seek to refrain from any intentional actions that may create harmful interference with each other's use of outer space in their activities under these Accords.
5. The Signatories commit to provide each other with necessary information regarding the location and nature of space-based activities under these Accords if a Signatory has reason to believe that the other Signatories' activities may result in harmful interference with or pose a safety hazard to its space-based activities.
6. The Signatories intend to use their experience under the Accords to contribute to multilateral efforts to further develop international practices, criteria, and rules applicable to the definition and determination of safety zones and harmful interference.
7. In order to implement their obligations under the Outer Space Treaty, the Signatories intend to provide notification of their activities and commit to coordinating with any relevant actor to avoid harmful interference. The area wherein this notification and coordination will be implemented to avoid harmful interference is referred to as a 'safety zone'. A safety zone should be the area in which nominal operations of a relevant activity or an anomalous event could reasonably cause harmful interference. The Signatories intend to observe the following principles related to safety zones:
 - (a) The size and scope of the safety zone, as well as the notice and coordination, should reflect the nature of the operations being conducted and the environment that such operations are conducted in;
 - (b) The size and scope of the safety zone should be determined in a reasonable manner leveraging commonly accepted scientific and engineering principles;
 - (c) The nature and existence of safety zones is expected to change over time reflecting the status of the relevant operation. If the nature of an operation changes, the operating Signatory should alter the size and scope of the corresponding safety zone as appropriate. Safety zones will ultimately be temporary, ending when the relevant operation ceases; sr;and
 - (d) The Signatories should promptly notify each other as well as the Secretary-General of the United Nations of the establishment, alteration, or end of any safety zone, consistent with Article XI of the Outer Space Treaty.

8. The Signatory maintaining a safety zone commits, upon request, to provide any Signatory with the basis for the area in accordance with the national rules and regulations applicable to each Signatory.

9. The Signatory establishing, maintaining, or ending a safety zone should do so in a manner that protects public and private personnel, equipment, and operations from harmful interference. The Signatories should, as appropriate, make relevant information regarding such safety zones, including the extent and general nature of operations taking place within them, available to the public as soon as practicable and feasible, while taking into account appropriate protections for proprietary and export-controlled information.

10. The Signatories commit to respect reasonable safety zones to avoid harmful interference with operations under these Accords, including by providing prior notification to and coordinating with each other before conducting operations in a safety zone established pursuant to these Accords.

11. The Signatories commit to use safety zones, which will be expected to change, evolve, or end based on the status of the specific activity, in a manner that encourages scientific discovery and technology demonstration, as well as the safe and efficient extraction and utilization of space resources in support of sustainable space exploration and other operations. The Signatories commit to respect the principle of free access to all areas of celestial bodies and all other provisions of the Outer Space Treaty in their use of safety zones. The Signatories further commit to adjust their usage of safety zones over time based on mutual experiences and consultations with each other and the international community.

SECTION 12 - ORBITAL DEBRIS

1. The Signatories commit to plan for the mitigation of orbital debris, including the safe, timely, and efficient passivation and disposal of spacecraft at the end of their missions, when appropriate, as part of their mission planning process. In the case of cooperative missions, such plans should explicitly include which Signatory has the primary responsibility for the end-of-mission planning and implementation.

2. The Signatories commit to limit, to the extent practicable, the generation of new, long-lived harmful debris released through normal operations, break-up in operational or post-mission phases, and accidents and conjunctions, by taking appropriate measures such as the selection of safe flight profiles and operational configurations as well as post-mission disposal of space structures.

SECTION 13 – FINAL PROVISIONS

1. Building on any consultative mechanisms in preexisting arrangements as appropriate, the Signatories commit to periodically consult to review the implementation of the principles in these Accords, and to exchange views on potential areas of future cooperation.

2. The Government of the United States of America will maintain the original text of these Accords and transmit to the Secretary-General of the United Nations a copy of these Accords, which is not eligible for registration under Article 102 of the Charter of the United Nations, with a view to its circulation to all the members of the Organization as an official document of the United Nations.

3. After October 13, 2020, any State seeking to become a Signatory to these Accords may submit its signature to the Government of the United States for addition to this text.

Adopted on October 13, 2020, in the English language.

[Signatures]