

# The Artemis Accords: what comes after the Moon?

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Max gave us *Territory in Outer Space in Principium 24*, examining the political and legal issues of exploration and settlement in space. Here he discusses the Artemis Accords, named after the new NASA moon landing programme, to regulate the new "race to Moon" and its implications beyond our big natural satellite.



The Artemis Accords' virtual signing ceremony, October 2020. Source: NASA ([youtu.be/PkVxAJpb3Bk](https://youtu.be/PkVxAJpb3Bk)) see also - NASA, International Partners Advance Cooperation with First Signings of Artemis Accords ([www.nasa.gov/press-release/nasa-international-partners-advance-cooperation-with-first-signings-of-artemis-accords](https://www.nasa.gov/press-release/nasa-international-partners-advance-cooperation-with-first-signings-of-artemis-accords)).

The Artemis Accords [1] are a series of principles signed bilaterally by the US and its international partners. The aim is to ensure those operating in space use the same rulebook. They represent a push by the U.S. to make space activities happen, ruffling a few feathers by sidestepping existing multilateral channels. Looking further afield, they will also probably mark the beginning of a new space divide. If countries want to make these discussions more international, they will have to step up.

First, a brief overview of the Accords. The aim is to achieve a sustainable and 'robust' presence on the Moon, and to develop forms of best practice when operating in space.

There are several 'principles' underpinning the Accords: peaceful purposes; transparency; interoperability; emergency assistance; the registration of space objects; release of scientific data; the protection of heritage; space resources; deconfliction of activities; and orbital debris and spacecraft disposal. Some recall existing international law or practice; others are more novel or more controversial.

The final Accords were published and signed by NASA and space agencies from seven other countries in October 2020: Australia, Canada, Japan, Luxembourg, Italy, the UK and the UAE [2]. At the time of writing, Ukraine and Brazil had subsequently added their signatures.

[1] *The Artemis Accords Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids For Peaceful Purposes* [nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf](https://nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf).

[2] US and seven other countries sign NASA's Artemis Accords to set rules for exploring the Moon - NASA's biggest partner, Russia, is not on the list - [theverge.com/2020/10/13/21507204/nasa-artemis-accords-8-countries-moon-outer-space-treaty](https://theverge.com/2020/10/13/21507204/nasa-artemis-accords-8-countries-moon-outer-space-treaty).

## Forging ahead, but not alone

The US has emphasised the compatibility of the Accords with existing international agreements. The ‘Outer Space Treaty’ (OST) is mentioned 13 times in the seven pages of the agreements, while signatories have affirmed the “importance of compliance with... the OST”.

Unlike the OST, they are not a new Treaty or legally binding, but have been agreed bilaterally. This has irked some in the space policy community. Dr Kai-Uwe Schrogl, President of the International Institute of Space Law (IISL), insisted that the Accords are, “not appreciated as particularly democratic”, as they began as high-level political dialogue rather than as a co-signed working paper presented to the Legal Subcommittee of UNCOPUOS [1]. It was at this UN body in March 2020 that the use of space resources was going to be discussed, before the meeting was postponed [2].

Elsewhere, the Hague International Space Resources Governance Working Group adopted its ‘building blocks’ for the governance of resource extraction in November 2019 [3]. This does not represent a treaty either, but had more states and organisations involved in their drafting.

The differing approaches reflect tension in European approaches to space. As a political agreement the Accords are matters of foreign policy, and so have been considered by individual states. While some European countries typically prefer working through multilateral organisations such as UNCOPUOS, Italy, Luxembourg and the UK have gone around this to join the US [4]. The Accords have laid bare diverging paths in European policy, forged already with the likes of Luxembourg encouraging the extraction of space resources.

This is a dilemma shared by Australia. Section 10 of the Accords encourages the extraction and utilisation of resources in space, “in a manner that complies with the Outer Space Treaty.” The OST, for its part, makes no mention of resource extraction, which was instead accounted for in the Moon Agreement (1979) signed by 18 states. This declared resources ‘the common heritage of [hu]mankind’, a framework that its supporters argue would have led to a fairer distribution of lunar resources [5].

Instead, the Moon Agreement has little legal bearing. It has been signed by few states whose number includes none of the major space powers. Keen to promote commercial activities in space, the US has said it will, “object to any attempt by any other state or international organisation to treat the Moon Agreement as reflecting or otherwise expressing customary international law.”[6] The problem here is that Australia has signed both, which is a legal contradiction. It is a scenario that other countries will face as the US seeks to gain consensus around its policies in outer space.

The issue has been parked to one side for now. The Australian Space Agency was keen to stress how useful the Accords would be to the development of the Australian space sector as part of a post-COVID-19 recovery. This tension will remain going forward, however, and commentators have warned that, “Australia needs to decide what it values more – an outer space shared by all, or the profits from possible mining deals that come from a more exclusive approach to space.”[7]

[1] #SpaceWatchGL Interviews – Kai-Uwe Schrogl: “We must not overrate the Artemis Accords” [spacewatch.global/2020/11/spacewatchgl-interviews-kai-uwe-schrogl-we-must-not-overrate-the-artemis-accords/](https://spacewatch.global/2020/11/spacewatchgl-interviews-kai-uwe-schrogl-we-must-not-overrate-the-artemis-accords/)

[2] Report of the Legal Subcommittee on its fifty-eighth session, held in Vienna from 1 to 12 April 2019, para. 278: [undocs.org/A/AC.105/1203](https://undocs.org/A/AC.105/1203)

[3] Building Blocks for the Development of an International Framework on Space Resource Activities November 2019 [www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/lucht--en-ruimterecht/space-resources/bb-thissrwg--cover.pdf](https://www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/lucht--en-ruimterecht/space-resources/bb-thissrwg--cover.pdf)

[4] ESPI Brief 46: Artemis Accords: What Implications for Europe? [espi.or.at/news/espi-brief-46-artemis-accords-what-implications-for-europe](https://espi.or.at/news/espi-brief-46-artemis-accords-what-implications-for-europe)

[5] The Artemis Accords: repeating the mistakes of the Age of Exploration [thespacereview.com/article/3975/1](https://thespacereview.com/article/3975/1)

[6] Executive Order on Encouraging International Support for the Recovery and Use of Space Resources - Infrastructure & Technology - Issued on: April 6, 2020 - "By the authority vested in me as President by the Constitution...." [www.whitehouse.gov/presidential-actions/executive-order-encouraging-international-support-recovery-use-space-resources/](https://www.whitehouse.gov/presidential-actions/executive-order-encouraging-international-support-recovery-use-space-resources/)

[7] Australia has long valued an outer space shared by all. Mining profits could change this [theconversation.com/australia-has-long-valued-an-outer-space-shared-by-all-mining-profits-could-change-this-137405](https://theconversation.com/australia-has-long-valued-an-outer-space-shared-by-all-mining-profits-could-change-this-137405)



Dr Kai-Uwe Schrogl

Credit: IISL

## Safety zones: a grab on territory?

Another aspect of the Accords with long-term effects on space policy is the concept of safety zones. Situated within the ‘Deconfliction of activities’ section, the aim is to avoid harmful interference with others’ activities on the surface of a celestial body. This would occur through the provision of publicly available information on the location and general nature of operations.

The details need to be ironed out, including whether it would be area-based, some type of a ‘code of conduct’, or functioning more on sector-by-sector or policy-by-policy bases. There are also questions about who would decide these regulations, how enforcement would work, and whether they would draw on other examples of area-based management.

NASA have argued that safety zones are necessary, practical, and comply with existing international law by implementing Article IX of the OST[1]. Operators working in proximity would require some form of area-based coordination as lunar regolith and dust is blown up by landing craft that could disrupt others.

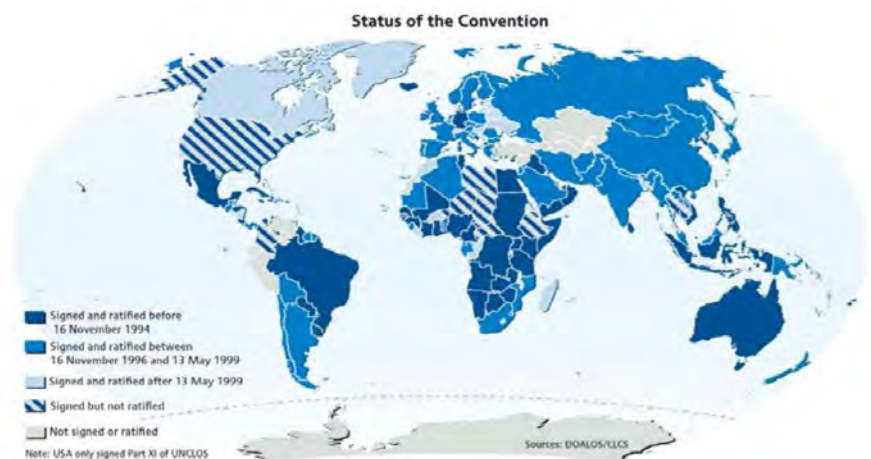
This is recognised in other international spaces. On the high seas, the UN Convention on the Law of the Sea (UNCLOS) allows safety zones of up to 500 m radius around artificial islands and manmade installations[2]. Crucially, states cannot claim sovereignty, either over territorial waters or of the resources in the water column or the seabed [3].

### Parties to the United Nations Convention on the Law of the Sea.

Source: UNEP/GRID-Arendal, 2009 - on p.8 of *Continental shelf: the last maritime zone*.

United Nations Environment Programme (2009) [wedocs.unep.org/handle/20.500.11822/8584](https://wedocs.unep.org/handle/20.500.11822/8584)

Note: As of January 2021 the UK is not an EU member



To take a possible model for the safety zones, a network of Antarctic Specially Protected Areas has been developed to protect scientific research or conservation within certain geographically defined areas. These do not involve national appropriation, as they are proposed and agreed by all signatories to the Antarctic Treaty System, with support from expert committees. Space lawyers have argued that it cannot be national appropriation as this is prohibited by OST Art II, while Art XII allows states to inspect each other’s bases – again as happens in Antarctica[4].

Critics have said that safety zones would “exclude other actors” and make the US the, “de facto gatekeeper to the Moon, asteroids, and other celestial bodies.” [5] This seems an exaggeration, as there are practical needs for the coordination of in-space activities. Crucial to the other examples listed is that they are managed through internationally agreed mechanisms – such as the UN, or bodies within the Antarctic Treaty System framework. The Artemis Accords have instead sidestepped the equivalent bodies in space policy, including the UN.

[1] Beyond Earth Institute ([beyondearth.org](https://beyondearth.org)) Artemis Accords: A Model for Space Settlement International Protocols? [youtu.be/JyrtAT2JgM](https://youtu.be/JyrtAT2JgM)

[2] SpaceWatchGL Opinion: *The Artemis Accords’ Proposed “Safety Zones” On The Moon A Good Start* [spacewatch.global/2020/05/spacewatchgl-opinion-the-artemis-accords-on-bringing-safety-zones-to-the-moon-and-some-expectations/](https://spacewatch.global/2020/05/spacewatchgl-opinion-the-artemis-accords-on-bringing-safety-zones-to-the-moon-and-some-expectations/)

[3] *United Nations Convention on the Law of the Sea*, UNCLOS (1982), Art 60 (4) [un.org/depts/los/convention\\_agreements/texts/unclos/unclos\\_e.pdf](https://un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf), Article 60 Artificial islands, installations and structures in the exclusive economic zone, page 45.

[4] *Spacewatchgl Feature: The Space Law Context of the Artemis Accords -*

(Part 1) [spacewatch.global/2020/05/spacewatchgl-feature-the-space-law-context-of-the-artemis-accords-part-1/](https://spacewatch.global/2020/05/spacewatchgl-feature-the-space-law-context-of-the-artemis-accords-part-1/)

(Part 2) [spacewatch.global/2020/05/spacewatchgl-feature-the-space-law-context-of-the-artemis-accords-part-2/](https://spacewatch.global/2020/05/spacewatchgl-feature-the-space-law-context-of-the-artemis-accords-part-2/)

[5] US policy puts the safe development of space at risk [science.sciencemag.org/content/370/6513/174?rss=1](https://science.sciencemag.org/content/370/6513/174?rss=1)

## UNilateralism?

Herein lies the problem. The Artemis Accords are clearly an attempt at spurring agreement on how to operate in outer space, and there is much emphasis on keeping to existing international law[1]. They have not, however, sought international buy-in beyond countries already close to the US, with none from Africa or South America (until Brazil) [2]. NASA do not seem bothered about this: at a Space Court Foundation roundtable, the agency's Mike Gold outlined how their space programmes are going to happen, with or without partners[3].

One of those partners could have been Russia, although the country has refused to sign the agreements. The Director General of Roscosmos Dmitry Rogozin compared their proposals to the 2003 invasion of Iraq when they were first released. The other major space actor is China, but who have also refused to sign (although US law would have forbidden their participation anyway [4]). Through its mouthpiece The Global Times, it referred to China as a 'space rival' to the US, with the latter waging a 'Cold War' against China and Russia [5]. It also labelled the agreements as, "an 'Enclosure Movement' in pursuit of colonisation and claiming sovereignty over the Moon."

## Going beyond the Moon and Mars

It is still too early to see the effects of the Artemis Accords. We remain far away from a crowded lunar surface, let alone interplanetary or even interstellar operations. Their impact on the policies and international law that shape these will only be seen after this decade's developments in space, which includes the possible crewed return of humanity to the Moon and, later, Mars.

This is novel legal and political territory. While they are not legally binding, the Accords are the most serious attempt at practical guidelines for activities on the Moon and beyond. Importantly, they have forced the issue, and are an attempt to put in place a US-centric framework, particularly around interoperability and the extraction of resources.

Space-related activities will continue apace regardless. The growing sophistication of the private sector complements the entry of 'new' nations into space, such as Israel and the UAE. The fact that Brazil and Ukraine are signatories indicates their long-term space ambitions, as much as their contemporary politics.

The agreements have highlighted contrasting approaches to space that reflect different geopolitical outlooks [6]. They will not change the fundamentals toward space policy – of a distanced Russia and alternative route taken by China. It could lead, however, to competing spaces in which we discuss space policy, with a new group of states that have made international agreements outside of bodies such as UNCOPUOS. As we operate in space and travel ever further afield, it is harder to see projects that will represent all of humanity. The Artemis Accords have clearly placed greater urgency on resolving the more complicated issues in space policy. To those who dislike operating outside conventional channels, this should be a wake-up call to come to some agreement; or lose relevance as countries press ahead on their own.

[1] U.S. space policy: An international model [science.sciencemag.org/content/370/6520/1045.2.full](https://science.sciencemag.org/content/370/6520/1045.2.full)

[2] Artemis Accords: why many countries are refusing to sign Moon exploration agreement [theconversation.com/artemis-accords-why-many-countries-are-refusing-to-sign-moon-exploration-agreement-148134](https://theconversation.com/artemis-accords-why-many-countries-are-refusing-to-sign-moon-exploration-agreement-148134)

[3] Space Court Foundation ([www.spacecourtfoundation.org](http://www.spacecourtfoundation.org)): SCV3 | Round-Table: Artemis Accords and the Future of Space Governance | Special Guest Mike Gold [www.youtube.com/watch?v=Hnl6cP3ACRc](https://www.youtube.com/watch?v=Hnl6cP3ACRc)

[4] Do NASA's Lunar Exploration Rules Violate Space Law? The Artemis Accords—NASA guidelines supposedly designed to regulate global cooperation on the moon—may serve to circumvent preexisting international treaties [www.scientificamerican.com/article/do-nasas-lunar-exploration-rules-violate-space-law/](https://www.scientificamerican.com/article/do-nasas-lunar-exploration-rules-violate-space-law/)

[5] Trump administration's 'Artemis Accords' expose political agenda of moon colonization, show Cold War mentality against space rivals: observers [www.globaltimes.cn/content/1187654.shtml](https://www.globaltimes.cn/content/1187654.shtml)

[6] Artemis Accords: A Step Toward International Cooperation or Further Competition? [www.lawfareblog.com/artemis-accords-step-toward-international-cooperation-or-further-competition](https://www.lawfareblog.com/artemis-accords-step-toward-international-cooperation-or-further-competition)

## About the Author

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