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Commentary for the *Journal of Air Law and Commerce* on the Article by Andrew Lee Entitled *The Future of the Law on the Moon*

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**COMMENTARY FOR THE *JOURNAL OF AIR LAW AND
COMMERCE* ON THE ARTICLE BY ANDREW LEE
ENTITLED *THE FUTURE OF THE LAW ON THE MOON***

STEPHAN HOBE*

MR. LEE HAS DELIVERED a very interesting Article. By taking a view into the future of space flight, he elaborates, regarding problems of space law, on the possibility of excavating lunar resources.

While Mr. Lee's considerations about the way to the Moon can be agreed upon entirely, there are other questions still open. I particularly agree with the fact that with SpaceX, a breakthrough invention was made for modern carriers and thus, a step in the history of space flight. The reusability of the carrier on its way to the Moon and beyond lowers the cost considerably. And indeed, the comparison to aviation is quite appropriate: On the one hand, it was clear from the beginning that airplanes should be used more than once.¹ On the other hand, the very fact that the first spacecraft were not reusable made space flight extraordinarily expensive.²

In this context, I do not agree entirely with Mr. Lee concerning the role of the Space Shuttle because the Space Shuttle technology was, for the first time, a technology that was built at least

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¹ This has never been put into doubt. *See, e.g.*, PAUL STEPHEN DEMPSEY, PUBLIC INTERNATIONAL AIR LAW 7–36 (2008) (tracing the development of the aerospace industry and aerospace law); NICOLAS MATEESCO MATTE, TREATISE ON AIR-AERONAUTICAL LAW *passim* (1981) (same).

² *See* Harry W. Jones, *The Recent Large Reduction in Space Launch Cost*, INT'L CONF. ENV'T SYS. 1, 1 (2018), https://ttu-ir.tdl.org/bitstream/handle/2346/74082/ICES_2018_81.pdf [<https://perma.cc/Y3L8-6VK6>].

on partial reusability.³ Be this as it may, this is not a point where one must fundamentally disagree with the author.

Such disagreement circles more on the very sensitive question of exploitation of lunar resources.⁴ It starts with the assertion that for this excavation, U.S. law will be basic. It is indeed correct that Title IV, § 51302 of the U.S. Commercial Space Launch Competitiveness Act of 2015 reserves all U.S. citizens the entitlement to engage in the commercial exploration for and commercial recovery of space resources.⁵ Section 51303 clarifies that any U.S. citizen “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.”⁶

Of course, the first question is whether these clauses are, so to speak, melted through the reference of this clause to the international obligations of the United States; that would, of course, include the Outer Space Treaty (OST). But according to the U.S. doctrine of primacy of national law, this reference is of little worth.⁷

On the other hand, it must be made extremely clear that nothing other than international law is applicable to outer space and the celestial bodies.⁸

One may argue, indeed, about the value of the Moon Agreement, which should be, of course, the agreement concerning the Moon. Here, we have explicit clauses on the legal nature of the Moon and its resources.⁹ The Moon and its resources are

³ Tim Sharp, *Space Shuttle: The First Reusable Spacecraft*, SPACE.COM, <https://www.space.com/16726-space-shuttle.html> [<https://perma.cc/LQ4Q-TAVV>] (Jan. 26, 2021).

⁴ For a discussion of the problem, see FRANCIS LYALL & PAUL B. LARSEN, *SPACE LAW: A TREATISE* 163, 169 (2d ed. 2018); STEPHAN HOBE, *SPACE LAW* 158–66 (2019).

⁵ U.S. Commercial Space Launch Competitiveness Act of 2015, 51 U.S.C. § 51302.

⁶ *Id.* § 51303.

⁷ On the relationship of domestic law and public international law, see generally, e.g., Paul R. Dubinsky, *International Law in the Legal System of the United States*, 58 AM. J. COMPAR. L. 455 (2010); JACK L. GOLDSMITH & ERIC A. POSNER, *THE LIMITS OF INTERNATIONAL LAW* 21, 26, 77 (2005); Yuji Iwasawa, *Domestic Application of International Law*, in 378 RECUEIL DES COURS: COLLECTED COURSES OF THE HAGUE ACADEMY OF INTERNATIONAL LAW 9 (2015).

⁸ LYALL & LARSEN, *supra* note 4, at 176; HOBE, *supra* note 4, at 158–66.

⁹ Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec. 18, 1979, 1363 U.N.T.S. 22 [hereinafter Moon Agreement].

considered to be the common heritage of mankind in Article 11 of the Moon Agreement,¹⁰ comparable to Article 136 of the Law of the Sea Convention for the deep seabed,¹¹ as mentioned by the author. And it is most likely, if the Moon and its resources indeed could be considered the common heritage of mankind, that any exploitation without an explicit license will be impossible.

But indeed, the argument is probably acceptable that the Moon Agreement, due to its only seventeen ratifications¹² (among them none of the real space powers), lacks legal value.¹³

Therefore, recourse must be had to the OST and here, indeed, to Article II.¹⁴ Article II provides that the celestial bodies are “not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”¹⁵ This provision makes it very clear that the appropriation of natural resources of the Moon is hardly possible. Notwithstanding Article I of the OST,¹⁶ according to which the use of celestial bodies “shall be carried out for the benefit and in the interests of all countries,”¹⁷ Article II makes it clear that there is no clear-cut title to any resource. Rather, all resources of the Moon do not belong to a state and cannot be appropriated by a single state, but only as a consequence of international administration because the Moon and its celestial bodies are an international

¹⁰ On that clause, see Ram Jakhu, Steven Freeland, Stephan Hobe & Fabio Tronchetti, *The Moon Agreement*, in 2 COLOGNE COMMENTARY ON SPACE LAW 388, 389 (Stephan Hobe, Bernhard Schmidt-Tedd & Kai-Uwe Schrogl eds., 2013).

¹¹ See Silja Vöneky & Anja Höfelmeier, *Article 136: Common Heritage of Mankind*, in UNITED NATIONS CONVENTION ON THE LAW OF THE SEA: A COMMENTARY 949, 950 (Alexander Proelss ed., 2017).

¹² Saudi Arabia has announced that it will withdraw its ratification effective January 5, 2024. See U.N. Secretary-General, Letter dated Jan. 5, 2023 from the Secretary-General addressed to the President of the General Assembly, C.N.4.2023.TREATIES-XXIV.2 (Jan. 5, 2023).

¹³ *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies*, U.N. OFF. FOR DISARMAMENT AFFS., <https://treaties.unoda.org/t/moon> [<https://perma.cc/E84W-X5T3>].

¹⁴ For a comprehensive interpretation, see Steven Freeland & Ram Jakhu, *Article II*, in 1 COLOGNE COMMENTARY ON SPACE LAW 44, 48 (Stephan Hobe, Bernhard Schmidt-Tedd & Kai-Uwe Schrogl eds., 2009).

¹⁵ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. II, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

¹⁶ On Article I's importance in this context, see Freeland & Hakhu, *supra* note 14, at 48. For a comprehensive interpretation of Article I, see Stephan Hobe, *Article I*, in 1 COLOGNE COMMENTARY ON SPACE LAW, *supra* note 14, at 48.

¹⁷ Outer Space Treaty, *supra* note 15, art. I.

common belonging to all mankind.¹⁸ The great problem is that American law is clearly not applicable in this case but international law is applicable, and we do not have explicit international law at the time. The Moon Agreement has made an attempt to draw an international legal regime, but this regime has never been enacted so far. And therefore, as a consequence, it is clear that due to the legal nature of the celestial bodies and their recourses, nonregulation means a clear prohibition of any exploitation so far.

It is because of this difference that this commentator has to disagree with Mr. Lee.

¹⁸ On the legal nature of the international common spaces, see KEMAL BASLAR, *THE CONCEPT OF THE COMMON HERITAGE OF MANKIND IN INTERNATIONAL LAW X passim* (1998).