Technology Policy Accelerator
LEADERSHIP FOR RESPONSIBLE SPACE POLICY

The Moon as a Test Case for Coercion Theory

US Interests in a New Space Race

Dan Berkenstock and Walter J. Manuel

The lunar surface is on track to become the first celestial footprint of sustained human habitation and a contested domain in the strategic competition between the United States and China. As with other contested domains—the South China Sea, Taiwan, the Arctic, and the Global South—both countries will likely seek to advance their national interests in and around the lunar surface while actively seeking to thwart the other.

This new domain has key differences from traditional ones: a limited ability for either party to project military power, immature legal governance and operating norms, and uncertainty about the Moon's true strategic, economic, and military value. What does seem certain is that significant national prestige and a technological windfall will accrue to parties that can create sustainable centers of activity on the lunar surface—especially those that do so first.

In this essay, we attempt to define the contours of near- to midterm potential conflict on the lunar surface. We then identify several plausible scenarios that could cause those contours to be violated, and summarize the levers of deterrence and compellence that the United States could entertain in response.

Analyzing these scenarios indicates that US interests within the lunar environment would likely be best served by (1) a realistic and honest understanding of the factors driving People's Republic of China (PRC) strategy; (2) early and clear communication on acceptable operating norms within the lunar environment; and (3) a clear expression of "red lines"—behaviors that would trigger severe consequences for PRC interests, including on Earth. Deterrence theory has been well studied for Earth's domains but only thinly considered in the vicinity of the lunar surface. Larger geopolitical and strategic forces are putting these two topic areas on a collision course in the near future, making this a timely moment to begin to study the implications of their confluence.

A Hoover Institution Essay

July 2026

THE LUNAR ENVIRONMENT

Although most Americans have seen images of Neil Armstrong bounding from the Eagle lunar lander, few have a working conception of the lunar environment, which encompasses the lunar surface, lunar orbits in the immediate vicinity of the surface, and points of strategic interest between the Earth and Moon. This broader category is often referred to as "cislunar."

The lunar surface is much smaller than Earth's—approximately 7.5 percent of Earth's total surface area, or roughly 25 percent of Earth's landmass. As on Earth, the surface is highly variable in inclination and roughness. The smooth areas most suitable for habitation cover roughly 16 percent of the total lunar surface area, yielding approximately 2.3 million square miles of "flat" terrain—comparable in scale to just over 60 percent of the total US land area.[1] The surface is covered in "regolith"—a combination of rock fragments from asteroid collisions and charged particles from the sun—which may contain useful materials including water, helium-3, metals, and rare earth minerals.[2] The majority of the surface is pockmarked by craters. Polar "cold traps" in deep craters that never receive sunlight could hold valuable scientific and economic resources. Temperatures vary between tremendous extremes, and the Moon is constantly bombarded by particles from the sun and micrometeoroids from the solar system and beyond—hazards that can significantly imperil personnel and equipment.

Many factors influence site selection for permanent lunar bases, including slope and roughness, temperature profile, illumination, communications accessibility, geologic safety, local availability of resources and construction materials, and radiation shielding. Combining all of these factors, the ideal circumstances for permanent lunar habitation are measured in thousands, not millions, of square miles—meaning competition to claim the "best" real estate is essentially inevitable. The lunar south pole in particular appears to be a highly optimal area for habitation, due to reserves of water ice, which could be used for life support and fuel generation. Other valuable resources appear heterogeneously distributed across the lunar surface, indicating that portions of the surface could also be contested for mining rights. Constrained resources often represent the flash points of conflict on Earth. They are likely to represent similar potential flash points in the lunar environment as well.

THE STATE OF PLAY

Although it was not a significant player in the first (US-Soviet) space race, China has long placed development of space capabilities near the center of its military, economic, and technological strategic planning. In 1970, China became the fifth country to launch a satellite into orbit on its own rocket. Space was a central pillar of the so-called 863 Program, launched in 1986 to revolutionize China's technological capabilities, which culminated in China becoming only the third country to successfully launch humans into orbit, in 2003.[3]

Over the past decade, China has come to see the ability to project power in orbit as key to blunting US military preeminence on Earth, while also seeing a lunar future as a stepping

stone to national prestige. Chinese officials have repeatedly stated a goal of landing human taikonauts (Chinese astronauts) on the Moon before 2030, and before the United States returns its own astronauts to the lunar surface.[4] To advance that goal, China has embarked on an ambitious series of robotic lunar missions, including the first sample return from the far side of the Moon (Chang'e 6, June 2024), and has placed communications relay satellites (Queqiao-1 in 2018, Queqiao-2 in 2024) in key lunar orbital regimes.[5] In 2021, the China National Space Administration (CNSA) and Russia's Roscosmos announced a multilateral plan to establish a base called the International Lunar Research Station (ILRS) at the Moon's south pole before 2035, with networks to connect it to equatorial and far-side sites by 2050.[6]

Russia, named as the co-leading ILRS partner, has played a diminishing operational role since 2022, with the practical burden of the partnership now sitting overwhelmingly with China. At the same time, Russia continues to exert disproportionate stress on the broader space-norms architecture—through its repeated vetoes of UN space-related resolutions, its departure from arms-control regimes, and its reported development of a space-based nuclear capability that, if deployed, would test the Outer Space Treaty's (OST) prohibition on weapons of mass destruction in orbit.[7] For the lunar competition specifically, Russia is a complicating actor in two ways: It constrains China's freedom of action within ILRS (because Russia is unreliable as a partner), and it simultaneously degrades the broader environment in which any US lunar coercion strategy must operate. In contrast to previous periods of international competition in space, today China is the principal competing actor while Russia increasingly is becoming a background variable.

While PRC space ambitions have moved ever closer to the center of its national strategy, US efforts in space have been sclerotic, at least until recently. Following the Apollo program, the United States envisioned a robust program of orbiting shuttles and space stations, only a fraction of which materialized—primarily due to budget pressure and a lack of clear strategic objectives. Successive US administrations have reiterated an interest in returning to the lunar surface, but the interest is usually couched in budgetary terms rather than grand national strategy. Within the course of the twenty-first century, two X factors have begun to disrupt this stagnant state of affairs: PRC space capabilities, and a privately funded US commercial sector whose capabilities have begun to outpace those of US government programs. During the first Trump administration, the United States reiterated its interest in returning to the Moon via Space Policy Directive-1, which established the Artemis program in 2017.[8] Artemis seeks to return US and allied astronauts to the lunar surface along with a proposed lunar surface base, using a mixture of government-defined and privately developed launch vehicles, boosters, capsules, and landers. The Artemis II crewed lunar flyby mission in April 2026 was a major success, and NASA is now targeting 2028 for a crewed lunar landing.[9] That timeline must be taken with a grain of salt. Artemis has been subject to numerous delays, and critical components of the final system, including the lunar landers, are not yet mission ready.[10]

The US commercial sector is both an asymmetric advantage and a complication. SpaceX's Starship, if it performs at the scale advertised, may be the single most consequential variable in whether the United States returns a sustained presence to the lunar surface in the next decade.[11] Blue Origin's lander work for Artemis III-V, NASA's Commercial Lunar Payload

Services (CLPS) program, and a growing cohort of private cislunar concept developers represent a capability set China cannot easily replicate. But the landscape is more nuanced than "commercial versus government." Most US commercial lunar activity to date has been funded through NASA contracts (CLPS, the Human Landing System), and government subsidization is likely to remain the dominant funding model until and unless commercial lunar economics justify private capital at scale.

It is also worth noting that the first decade of lunar competition will likely be dominated by robotics. Sustaining human life on the lunar surface is hard, expensive, and slow to scale. The Chinese program is already heavily robotic, and US progress has come most reliably through CLPS-funded robotic landers.[12] The coercion calculus is different when targets and instruments are unmanned: lower stakes than for manned systems, lower escalation thresholds, but different attribution problems and different reputational dynamics. Much of the deterrence vocabulary in this essay applies to either case, but the human-versus-robotic framing is a new and complicating development in the calculus of deterrence.

Each country has attempted to internationalize its program by adding allies to provide scientific, technical, political, and financial support. To date, the US-led Artemis Accords have sixty-seven signatories.[13] As of April 2025, the China-Russia ILRS effort had signed seventeen countries and international organizations, and more than fifty international research institutions, as partners.[14] The Artemis Accords' "safety zones" provision applies to operations by Accord signatories, which can be state or commercial—leaving a significant open policy question about whether and how the US government would back a US commercial actor's declared safety zone. Both efforts fall under the auspices of the Outer Space Treaty, a United Nations-driven agreement opened for signature in January 1967.[15] Although lacking enforcement mechanisms, the OST has for nearly sixty years established valuable norms in space exploration, including limitations on "national appropriation or claims of sovereignty on celestial bodies," the requirement that the Moon be used "exclusively for peaceful purposes," and a prohibition of "nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies." A separate treaty, the Moon Agreement, was passed by the UN General Assembly in 1979 to clarify many terms left vague in the OST—particularly with respect to military use, information rights, and the creation of an international body to determine ownership of resources extracted from the lunar surface. This treaty was never ratified by the leading spacefaring nations, including the United States, Russia, and China, which limits its practical influence even though the treaty did enter into force in 1984 and binds its small number of state parties.[16]

CONCERNING SCENARIOS

Understanding the realities of the lunar environment, the strategic objectives of the primary actors, and the current state of governance and norms allows us to pose a series of scenarios in which both sides seek to influence the other's behavior. This section presents four scenarios that could lead to unacceptable circumstances or to conflict, either within the lunar environment or spilling into the broader space domain or back to Earth. The scenarios are listed

roughly in order of increasing estimated destabilization to traditional governance and norms and increasing damage to US national interests—though, as noted at the end of the section, these two dimensions do not always align cleanly.

1. CHINA BLOCKADING RESOURCES

There is current uncertainty as to the distribution, concentration, and value of lunar resources such as helium-3, water, and rare earth minerals. If China is able to identify and occupy preferable locations for habitation and extraction operations first, it is likely to set terms to protect those operations from "interference." Although the OST discusses "harmful interference" and the Artemis Accords envisage "safety zones," neither term is well-defined. China has demonstrated this pattern on Earth: In 2010, in response to the so-called Senkaku Islands fishing boat incident, Beijing imposed a de facto embargo on rare earth exports to Japan, weaponizing its dominant supply position.[17] The lunar analog would be: Occupy a high-value site first, then enforce broad "harmful interference" interpretations to deny competitors' access to nearby deposits. In contrast to China's plans, US efforts to develop lunar resources are increasingly structured around commercial entities—though, as noted above, most current activity is funded through NASA contracts. Were a Chinese entity to occupy and identify a valuable deposit of ore, it is not clear what would happen should a US commercial or government entity land nearby and initiate its own extraction operations.

2. CHINA ASSERTING DE FACTO LUNAR TERRITORIAL CLAIMS

Scenario 1 concerns access control over specific resource sites; Scenario 2 concerns the broader claim that a network of installations confers something approaching territorial sovereignty. China has employed exactly this strategy of territorial expansion in the South China Sea—building artificial islands and then asserting territorial waters between them. Current Chinese lunar plans already envisage polar, equatorial, and far-side bases connected by "networks." It is highly plausible that the PRC would use these "networks" to employ a similar strategy on the Moon, claiming that installations or operations of US entities in close proximity to those "networks" and bases constitute harmful interference.

3. NORM EROSION THROUGH ESPIONAGE AND INTERFERENCE IN LUNAR OPERATIONS

It is almost inevitable that, once the PRC establishes any significant presence on the lunar surface, the US will seek to understand the operations and intentions of that presence through remote sensing. Given that there is no atmosphere preventing very-low-flying satellites over the lunar surface, the US would be virtually unlimited in how closely it chooses to fly spacecraft to inspect PRC facilities. The PRC would likely employ means to interfere with those efforts that fall short of overt kinetic weaponry (i.e., surface-to-air-type missiles) but that could still render those resources inoperative either temporarily or permanently. Although these capabilities may not technically count as deploying weapons on the lunar surface, they may be close enough to render the historical OST norms limiting weapons in space essentially meaningless. This particular clause of the OST is already being tested by Russia's reported goal of placing a nuclear weapon in Earth orbit. A complicating factor is attribution.

Even if the US suspects Chinese interference, demonstrating it to international audiences would be difficult given limited US lunar domain awareness assets. The implication is that any US lunar mining or habitation activity would need to be paired with on-site sensors capable of independently documenting any interference firsthand.

4. CHINA ASSERTING OVERT LUNAR TERRITORIAL CLAIMS

From the PRC's point of view, the Outer Space Treaty itself may serve only the purpose of preventing the United States from making lunar territorial claims in the event the US beats China back to the lunar surface. China may view the other norms created by the OST as less valuable for its interests. If China were first to get humans to the lunar surface in a sustained manner, it could simply inform the UN that it was leaving the Outer Space Treaty, plant a flag, and claim any (or all) portions of the lunar surface as PRC territory. The typical PRC space policy playbook is to officially take positions supporting cooperative and peaceful uses of space, while continuing to operate in legal gray zones. However, such an overt declaration would carry significant consequences for sovereignty, national prestige, and resource utilization, and therefore the possibility cannot be overlooked.

These four scenarios are not exhaustive, and the ordering above is not strictly clean. Scenario 3—operational interference with US monitoring satellites—is arguably more escalatory in the near term than Scenario 4, since Scenario 4 is largely legal and rhetorical while Scenario 3 involves actual kinetic or near-kinetic effects on US assets. Both dimensions—operational consequence and damage to governance norms—should be tracked separately rather than collapsed into a single ranking.

PRACTICAL OPTIONS AND LIMITATIONS OF COERCION

Classic coercion theory, building on Thomas Schelling's work, distinguishes between *deterrence* (a threat to prevent an adversary from doing something) and *compellence* (a threat intended to make an adversary do something).[18] Each approach hinges on a "credible threat" communicated by one party and interpreted by the opposing party within the context of its own political and cultural perspective. Schelling further emphasized that coercion depends on signaling, on commitment devices (actions that visibly tie the threatener's hands), and on the adversary's belief that escalation can be controlled—or, in some cases, deliberately cannot be. Compellence is widely understood to be harder than deterrence, because it requires the adversary to take a visible action, which is reputationally costly in a way that inaction is not.

The scenarios listed in the previous section contemplate several categories of action that the US could conceivably take to deter the PRC from undertaking, including interfering with US government or commercial exploration, habitation, or extraction activities; interfering with US equipment in orbit above the lunar surface; preventing claims of sovereignty over territory (de facto or overt); and the general degradation of existing norms of operations in space.

More broadly, the US should seek to deter China from abandoning the Outer Space Treaty or from engaging in a policy of weaponization of space, including the Moon.

There are also several areas where the US could seek to compel China to undertake certain actions. These would most likely include agreement (either tacit or explicit) to US-driven norms as defined in the Artemis Accords, or agreement to adopt a successor treaty to the OST that advances US interests in an era of sustained lunar habitation. The compellence side is the harder lift, because it requires Chinese leadership to take a visible step—accepting US-defined norms—that would be reputationally costly inside China and across audiences in the developing world. Critical assessment requires acknowledging that most realistic US lunar coercion tools are deterrent, not compellent.

The United States has many potential levers of "integrated deterrence." The 2022 National Defense Strategy concept names threats across the political, economic, and military spectrum that could influence adversary behavior.[19] The lunar environment will not be hermetically sealed from other contests, diplomacy, and actions on or near Earth. But several factors complicate the United States' ability to engage in credible threats to effect deterrence on the Moon.

First, unlike in Earth's land, sea, air, and space domains, the United States currently has very limited ability to project kinetic force on the lunar surface or its immediate vicinity. Current plans to return US personnel to the Moon fall under the auspices of NASA, a civilian agency, and are largely contingent on rockets and landers being developed by private companies. The US Space Force, created in 2019, has begun publicly discussing space control and a "follow the flag" doctrine for protecting US interests in space, including commercial interests.[20] But the gap between doctrine and operational cislunar capability remains substantial. There has been little detailed public discussion of what kinetic force projection in lunar orbit would actually require, how it would be commanded, or which appropriations would fund it. Doctrine is necessary but not sufficient.

Second, if the United States was perceived to weaponize or threaten military action in space, the country would incur, potentially high, reputational costs. Threats against human life in space carry the highest taboo—both because of the country's legacy of civilian-driven human exploration and because of a broader public sense that crewed spacefaring should be cooperative. Actions that would degrade the broader space environment—Kessler syndrome–inducing debris, for instance—carry a high reputational cost, because the externalities harm all spacefaring nations.[21] Actions targeting specific adversary equipment without broader environmental effects carry the lowest reputational cost, and constitute the category where US credibility is highest. Whereas neither China nor Russia has ever held itself up as the "city upon a hill," the United States has done so, a position that constrains it most sharply in the first category.

Finally, the US could threaten to remove itself from the Outer Space Treaty and to launch its own campaign to claim sovereignty over part, or all, of the lunar surface. However, given US leadership in the OST and the norms against territorial appropriation written into the Artemis Accords, this option would lack credibility as a meaningful threat.

Allies and partners are an underused lever in the analysis above, and they may matter even more on the Moon than on Earth. Given the current limited ability of the US to project force in cislunar space, coalition-based norm setting may be one of the strongest tools available. Properly mobilized, the Artemis Accords signatories could deliver collective nonrecognition of Chinese territorial claims—a Schelling-style commitment device that does not require US unilateral action and that would be costly for China to ignore. Major spacefaring allies—including Japan, the European Space Agency, the Republic of Korea, India, Australia, and the United Arab Emirates (UAE)—each have their own lunar and cislunar interests. Aligning them around US-defined norms is a diplomatic challenge, but one in which the United States should be able to bring the weight of its historical leadership in space exploration to bear.

ANALYSIS AND FUTURE WORK

In the end, the best lever to influence unwanted PRC behavior is probably for the United States to return to and establish a sustained human presence on the lunar surface first. As the saying goes, "Possession is nine-tenths of the law." The first-mover advantage of initiating human habitation—and the ensuing economic and scientific activity—would give the United States a much more powerful position from which to deter or compel PRC behavior, should the need arise. Fully characterizing these dynamics would benefit from a more detailed understanding of the costs required to achieve that capability. In particular, the near-term emphasis on the "Golden Dome" homeland missile-defense initiative may diminish the political capital and budget available to accelerate plans for the Moon.[22]

Beyond the immediate cost-benefit trade-offs, we should not delude ourselves into the trap so often encountered in the past that "space is different" and thus immune from conflict. Countries will continue to seek out arrangements that best serve their national interests and will react negatively when they perceive their actions to be limited by antagonists.

Policymakers have only recently reached the point where issues of lunar deterrence are coming into view. To date there has been limited analysis of possible scenarios with respect to the lunar race and their implications. A near-term US lunar posture worth considering would combine four elements. First, explicit programmatic priority on landing crewed missions in the next several years, recognizing the commercial sector as the primary actor and adjusting NASA, Department of Defense (DOD), and private-sector incentives accordingly. Second, a coordinated diplomatic effort with Artemis Accords signatories to publicly establish operating norms—particularly around "harmful interference" and "safety zones"—before Chinese ILRS operations make those norms moot. Third, clear and communicated red lines: interference with US satellites in lunar orbit, kinetic effects on US assets, and claims of sovereignty over US-affiliated zones—each paired with credible declared responses (most realistically economic and diplomatic rather than military, given the projection limitations above). Fourth, doctrine development inside the DOD and Space Force about what military escalation in cislunar space would actually look like, so that any future deterrent threat is anchored in an actual capability concept rather than a rhetorical one.

Several additional lines of inquiry warrant development beyond this essay. First, the interplay between the lunar environment and other orbital and terrestrial dynamics—including how lunar coercion choices condition (or are conditioned by) broader US-PRC competition—deserves explicit analysis. Second, a serious cost-benefit framework for accelerated lunar investment, evaluated against competing claims on the defense and discretionary envelope, would discipline the "reach the Moon first" recommendation. Third, gaming out a robotics-dominant lunar competition decade—with humans largely absent—would test whether the deterrence vocabulary built around human presence translates cleanly to autonomous systems. These topics would lend themselves well to study by wargaming and tabletop exercises outside of government, given the current civilian-driven nature of issues related to the lunar environment.

CONCLUSIONS

The lunar environment offers a unique test case by which to consider the application of coercion in foreign policy, literally outside the domain of traditional applications of the theory. It is an environment with unknown but potentially significant political and economic value, where the United States currently has severely limited ability to project force compared with its ability in domains on and near Earth. The national prestige benefit for China is clear, and the PRC execution strategy appears both credible and prioritized. Sustained human habitation of the Moon has credibly transitioned from science fiction to a likely reality within the next one to two decades. All these factors together make this area not only an interesting test case by which to stress historical assumptions related to coercion theory, but also a valuable topic to develop for the policymakers who will have to confront its implications and decide on courses of action in the very near future. It is imperative to start rigorously thinking now about deterrence, compellence, and alliances in the lunar environment, before competition hardens and norms are established by others.

NOTES

1. Siyan Wang, Peixian Li, Xiaoyu Wang, Lan Luo, and Xing Shi, "Where Shall We Live on the Moon? Multi-Factor Site Selection and Scenario-Based Planning for Permanent Lunar Habitats," *Acta Astronautica* 238, pt. A (2026): 804–24, https://doi.org/10.1016/j.actaastro.2025.09.066.

2. Harrison Schmitt, *Return to the Moon: Exploration, Enterprise, and Energy in the Human Settlement of Space* (Copernicus Books, 2006).

3. Roger Handberg and Zhen Li, *Chinese Space Policy: A Study in Domestic and International Politics* (Routledge, 2007).

4. Eduardo Baptista, "China's Crewed Lunar Programme Eyes Astronaut Landing by 2030," Reuters, April 2, 2026, https://www.reuters.com/science/chinas-crewed-lunar-programme-eyes-astronaut-landing-by-2030-2026-04-02/.

5. Xinhua, "Xi Calls for Accelerating Progress in China's Space Endeavors," Chinese People's Political Consultative Conference, September 24, 2024, http://en.cppcc.gov.cn/2024-09/24/c_1024517.htm.

6. Xinhua, "China's Planned Lunar Research Station Ushers in New Era of Global Space Collaboration," State Council of the People's Republic of China, September 7, 2024, https://english.www.gov.cn/news/202409/07/content_WS66dbeb9dc6d0868f4e8eab63.html.

7. US Space Force, "Space Threat Fact Sheet," April 2026, https://www.spaceforce.mil/About-Us/Fact-Sheets/Fact-Sheet-Display/Article/4297159/space-threat-fact-sheet/.

8. Donald J. Trump, "Presidential Memorandum on Reinvigorating America's Human Space Exploration Program," The White House, December 11, 2017, https://trumpwhitehouse.archives.gov/presidential-actions/presidential-memorandum-reinvigorating-americas-human-space-exploration-program/; and National Aeronautics and Space Administration, "Artemis," last modified April 10, 2026, https://www.nasa.gov/humans-in-space/artemis/.

9. National Aeronautics and Space Administration, "NASA Provides Update on Moon Base Rovers, Landers, Missions," news release no. 26-046, May 26, 2026, https://www.nasa.gov/news-release/nasa-provides-update-on-moon-base-rovers-landers-missions/.

10. NASA Office of the Inspector General, "Artemis Lander Program Faces Schedule Delays and Unmitigated Crew Safety Risks," March 10, 2026, https://oig.nasa.gov/news/artemis-lander-program-faces-schedule-delays-and-unmitigated-crew-safety-risks/.

11. Dwarkesh Patel, "Elon Musk—'In 36 Months, the Cheapest Place to Put AI Will Be Space,'" featuring Elon Musk, *Dwarkesh Podcast*, February 5, 2026, https://podcasts.apple.com/us/podcast/elon-musk-in-36-months-the-cheapest-place-to-put-ai/id1516093381?i=1000748400389.

12. National Aeronautics and Space Administration, "Commercial Lunar Payload Services," last modified March 24, 2026, https://www.nasa.gov/commercial-lunar-payload-services/.

13. National Aeronautics and Space Administration, "The Artemis Accords," last modified May 7, 2026, https://www.nasa.gov/artemis-accords/.

14. Xinhua, "International Lunar Research Station Attracts More Partners: CNSA," China National Space Administration, April 24, 2025, https://www.cnsa.gov.cn/english/n6465652/n6465653/c10670178/content.html.

15. United Nations Office for Outer Space Affairs, "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies," accessed June 12, 2026, https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html.

16. United Nations Office for Outer Space Affairs, "Agreement Governing the Activities of States on the Moon and Other Celestial Bodies," accessed June 12, 2026, https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/intromoon-agreement.html.

17. Keith Bradsher, "Amid Tension, China Blocks Vital Exports to Japan," *The New York Times*, September 22, 2010, https://www.nytimes.com/2010/09/23/business/global/23rare.html.

18. Tami Davis Biddle, "Coercion Theory: A Basic Introduction for Practitioners," *Texas National Security Review* 3, no. 2 (Spring 2020): 94–109, https://tnsr.org/2020/02/coercion-theory-a-basic-introduction-for-practitioners/. For Schelling's work, see, for example, Thomas C. Schelling, *Arms and Influence* (Yale University Press, 1966).

19. *2022 National Defense Strategy of the United States of America* (US Department of Defense, 2022), https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf.

20. US Space Force, *Space Force Doctrine Document 1: The Space Force* (Space Training and Readiness Command, April 3, 2025), https://www.starcom.spaceforce.mil/Portals/2/Space%20Force%20Doctrine%20Document%201%20FINAL_4Apr25.pdf.

21. Simone D'Amico, Tycho Bogdanowitsch, and Rebecca Wang, "Space Safety and Sustainability, Part I: Past and Present Practices," Hoover Institution, Technology Policy Accelerator, September 2025, https://www.hoover.org/research/space-safety-and-sustainability-part-i-past-and-present-practices.

22. Hannah D. Dennis, *Defense Primer: The Golden Dome for America*, CRS In Focus IF13115 (Congressional Research Service, 2025), https://www.congress.gov/crs-product/IF13115.

32 31 30 29 28 27 26 7 6 5 4 3 2 1

Preferred citation: Dan Berkenstock and Walter J. Manuel, "The Moon as a Test Case for Coercion Theory: US Interests in a New Space Race," Leadership for Responsible Space Policy, Hoover Institution, July 2026.

ABOUT THE AUTHORS

DAN BERKENSTOCK

Dan Berkenstock is a distinguished research fellow at the Hoover Institution, where he studies the intersection of space entrepreneurship, venture-backed defense tech companies, and defense acquisition reform. Previously, Berkenstock was the founding CEO of the venture-backed company Skybox Imaging. He holds a PhD in aeronautics and astronautics from Stanford University.

WALTER J. MANUEL

Walter J. Manuel is a PhD candidate in Stanford's Aeronautics and Astronautics Department and a member of the Stanford Space Rendezvous Laboratory. His research focuses on enabling autonomous distributed space systems and improving space domain awareness in cislunar environments.

TECHNOLOGY POLICY ACCELERATOR

The Technology Policy Accelerator at the Hoover Institution conducts research and develops insights that help government and business leaders better understand emerging technology and its geopolitical implications so they can seize opportunities, mitigate risks, and advance American interests and values.

For more information about this Hoover Institution initiative, visit us online at hoover.org/research-teams/technology-policy-accelerator.

The Leadership for Responsible Space Policy Initiative

This essay is a product of the Leadership for Responsible Space Policy Initiative, which is housed within the Hoover Institution's Technology Policy Accelerator. The initiative explores new technologies and policy frameworks that could help ensure responsible stewardship of this global commons.

Hoover Institution
Stanford University
434 Galvez Mall
Stanford, CA 94305-6003
650-723-1754

Hoover Institution
in Washington
1399 New York Ave. NW, Ste. 500
Washington, DC 20005
202-760-3200

Hoover Institution
in Texas
3889 Maple Ave., Ste. 600
Dallas, TX 75219
hoovertexas@stanford.edu

HOOVER INSTITUTION