

The Multi-Aligned Orbit: How UAE-China Space Cooperation Illustrates Middle Power Diplomacy

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Abstract

As the United States expands the Artemis Accords and China accelerates development of the International Lunar Research Station (ILRS), middle powers increasingly confront a more differentiated landscape of technological ecosystems, regulatory regimes, and governance architectures. By engaging both systems, the UAE negotiates a pathway that seeks to strengthen technological autonomy, diversify partnerships, and contribute to emerging norms in outer space. This article argues that the UAE's approach offers an instructive example of multi-aligned space diplomacy, one that may enhance national capability and inform the governance options available to other middle powers in Asia and the Global South.

1. Introduction & Theoretical Framework

Ahead of the Second China-Arab States Summit, which was originally scheduled to be hosted by Beijing in June 2026 but was subsequently postponed until further notice due to regional instability, intensifying competition over lunar governance has elevated space diplomacy from a technical domain into a prominent arena of diplomatic engagement. As the United States expands the Artemis Accords and China accelerates development of the International Lunar Research Station (ILRS), middle powers increasingly confront a more differentiated landscape of technological ecosystems, regulatory regimes, and governance architectures. The United Arab Emirates (UAE), positioned at the intersection of Gulf diplomacy, diversified foreign policy, and ambitious space development, offers an instructive case.

Within international relations theory, strategic hedging refers to cultivating cooperative ties with multiple major powers while avoiding exclusive alignment. In the space domain, this hedging manifests as multi-alignment: a deliberate engagement with parallel lunar programs, commercial launch providers, and legal frameworks. Middle powers adopt multi-alignment to preserve autonomy, expand capability portfolios, and mitigate the risks associated with over-dependence on any single bloc.

This strategic environment is shaped by structural constraints within the US policy ecosystem. The Wolf Amendment restricts NASA and the White House science office from bilateral cooperation with China and Chinese-owned companies absent an FBI risk certification, while International Traffic in Arms Regulations (ITAR) impose strict controls on the transfer of space-related hardware and components. These constraints create friction for states seeking diversified partnerships, particularly when collaborating with China's rapidly expanding commercial and scientific space sector. At the same time, China's 15th Five-Year Plan (2026-2030),

adopted in March 2026, explicitly prioritises the international expansion of China's space services. This creates an established, structured framework for long-term bilateral partnerships with Global South economies (CGTN, 2026).

Against this backdrop, the UAE's simultaneous participation in the Artemis Accords and the expanding engagement of UAE universities and firms with China's ILRS network reflect a diversified diplomatic approach. By engaging both systems, the UAE negotiates a pathway that seeks to strengthen technological autonomy, diversify partnerships, and contribute to emerging norms in outer space. This article argues that the UAE's approach offers an instructive example of multi-aligned space diplomacy, one that may enhance national capability and inform the governance options available to other middle powers in Asia and the Global South.

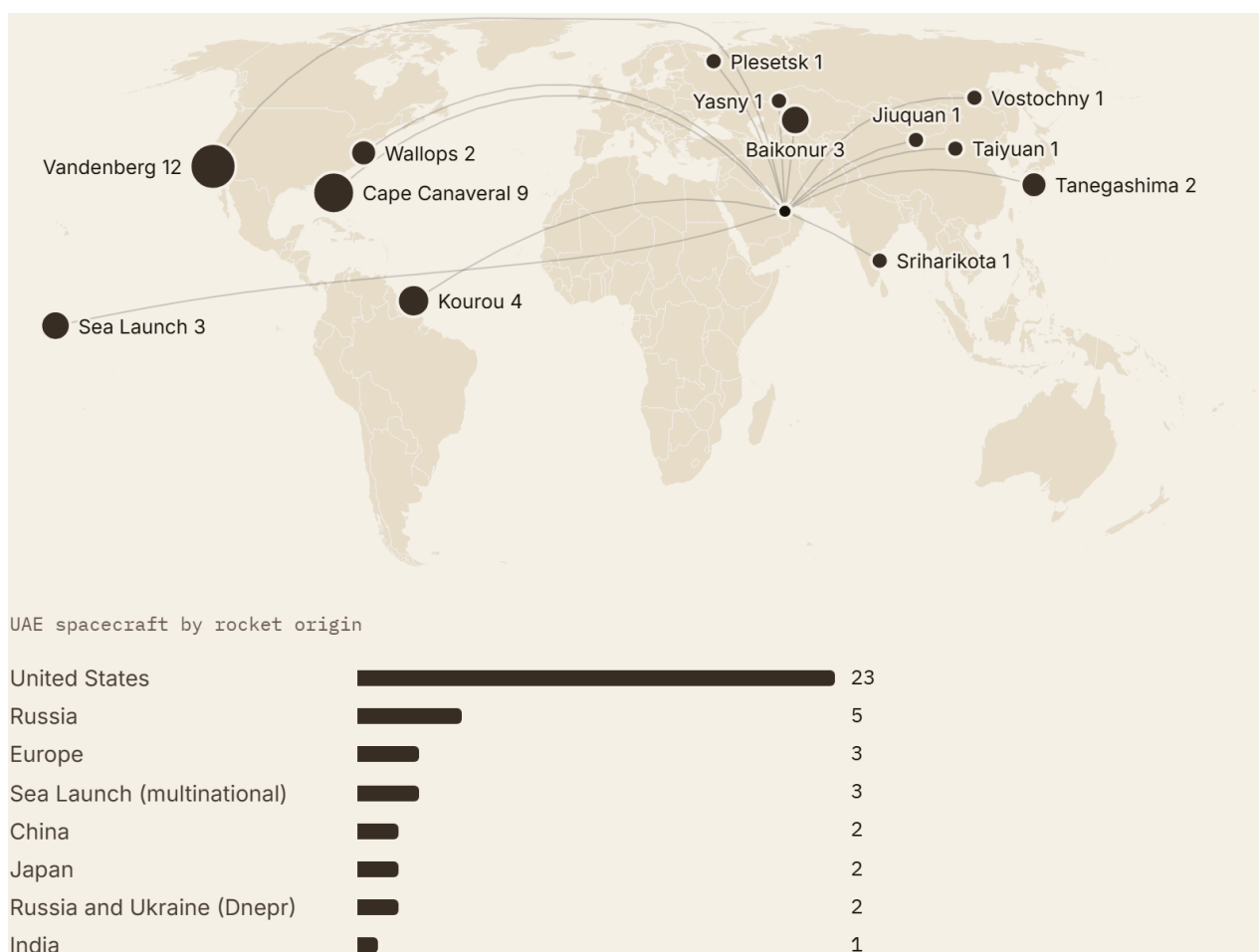
2. Case Study 1: Regional Convening & Launch Infrastructure

The launch of Arab Satellite 813 represents a milestone in China-UAE space cooperation and a notable step in the UAE's role as a regional convener. Developed at the UAE's National Space Science and Technology Centre (NSSTC) at UAE University in partnership with China's Shanghai Engineering Centre for Microsatellites, the satellite was successfully launched on 10 December 2025 aboard China's Lijian-1 rocket from the Dongfeng Commercial Space Innovation Pilot Zone (Chinese Academy of Sciences, 2025). Lijian-1 was developed by CAS Space, which has attracted a growing number of international customers thanks to the rocket's cost-efficiency and commercially accessible launch cadence.

Arab Satellite 813 is the first joint Arab satellite, developed under the Arab Space Cooperation Group, a 14-member consortium launched by the UAE in 2019 to advance joint Arab space capabilities. Equipped with a hyperspectral imager, an atmospheric polarimeter, and a panchromatic imager, the satellite enables high-precision environmental monitoring across the region (UAE Space Agency, 2025; ARABIC.NEWS.CN, 2026). Having successfully transitioned from its early 2026 orbital testing phase, the satellite's open data streams are now actively integrated into regional climate analysis, agricultural planning, water management, and environmental policy harmonisation strategies. More than 40 engineers from UAE University, together with other Arab researchers, contributed to its development (Chinese Academy of Sciences, 2025), reflecting a broader regional investment in scientific capacity building.

Why do Arab states choose Chinese launch infrastructure?

A key diplomatic question is why the Arab Space Cooperation Group selected a Chinese launch provider for Arab Satellite 813. Several factors can shape provider choice, including launch availability, schedule predictability, cost, and export-control requirements. Western launch providers can face high demand and limited availability, and export-control and licensing requirements can add complexity for some payloads. At the same time, the UAE has continued to use launch providers in other countries, for example, Japan's H-IIA rocket for the Hope Probe in 2020, which suggests that provider selection is mission-specific rather than exclusive.



Whose rockets have carried UAE spacecraft. Circles are sized by the number of UAE spacecraft launched from each site. Sources: Jonathan McDowell's General Catalog of Artificial Space Objects, Gunter's Space Page, operators and launch providers.

China offers a packaged model in which satellite construction, operator training, and technical support accompany launch services. CSIS documents this approach across 64 countries engaged in Chinese space cooperation since 2000, more than three-quarters of them in the Global South (CSIS, 2026). For states with limited domestic capacity, this can provide an accessible pathway to space. Assessments of its implications differ. CSIS characterises these engagements as supporting legitimate scientific and commercial ventures while also warranting close attention from Washington, given the dual-use nature of some associated infrastructure, whereas other analysts note that buyers such as Egypt procure satellites from several suppliers, including Ukraine, Russia, France, Italy, and China (Lowy Institute, 2026). China's commercial launch sector, supported by state-backed innovation zones and private aerospace firms, has become increasingly important to its space diplomacy.

For the UAE, Chinese launch services provide a practical platform for regional convening, enabling Abu Dhabi to deliver tangible capabilities to Arab partners while preserving strategic autonomy. The Lijian-1 launch of Arab Satellite 813 illustrated how Chinese launch services can offer a practical option for regional projects.

Regional convening through capability delivery

Diplomatically, the UAE's stewardship of Arab Satellite 813 strengthens its role as a convening actor in Arab space governance. By using Chinese launch services, the UAE demonstrates a pragmatic approach to capability acquisition that prioritises accessibility, cost-efficiency, and speed of deployment. China, for its part, expands its commercial and scientific engagement in the region, while the UAE strengthens its role as a regional convener and bridge-builder through capability delivery.

This cooperation illustrates a mutually reinforcing model: the UAE strengthens its convening role and gains technical capability, while China expands its commercial and diplomatic footprint through cooperative, non-exclusive engagement. UAE institutions and firms have also begun to engage with China's ILRS programme: the University of Sharjah signed an MoU with China's Deep Space Exploration Laboratory (DSEL) in November 2023 (SpaceNews, 2023b), and Orbital Space signed an agreement with DSEL in September 2024 to help develop lunar payloads (The National, 2024). IFRI analyst Marc Julienne observes that many of China's ILRS partners are academic institutions, commercial firms, and regional bodies rather than national space agencies (IFRI, 2024). For the UAE, this multi-stakeholder ecosystem allows non-state actors to engage with Chinese counterparts independently, aligning with the country's flexible commercial space strategy.

3. Case Study 2: Deep Space Hedging: Artemis vs. ILRS

The UAE's dual engagement with the Artemis Accords and China's ILRS network exemplifies deep-space hedging. The UAE was one of the eight original signatories of the Artemis Accords in October 2020, joining a US-led governance framework emphasising transparency, interoperability, and peaceful exploration. Yet, in parallel, the UAE has expanded cooperation with China's ILRS through academic, commercial, and scientific channels, including an MoU between the University of Sharjah and DSEL (SpaceNews, 2023b). The UAE's principal hardware contribution to Artemis is a crew and science airlock for the Gateway lunar station, agreed with NASA in January 2024. Following NASA's March 2026 decision to pause the Gateway project in its current form in favour of an integrated lunar surface base, the strategic landscape has shifted. However, the Mohammed bin Rashid Space Centre (MBRSC) promptly reaffirmed its long-term commitment to the programme, highlighting the UAE's intent to preserve its critical infrastructural role within the broader Artemis architecture.

Year	With the United States	With China
2020	October Signs the Artemis Accords as one of the eight original signatories.	
2022		September MBRSC and the China National Space Administration agree to fly the Rashid-2 rover on Chang'e-7.
2023		Reports say US export controls derailed the Chang'e-7 arrangement. November The University of Sharjah signs an MoU with China's Deep Space Exploration Laboratory.
2024	January Agrees to provide a crew and science airlock for NASA's Gateway lunar station.	September Orbital Space signs an agreement with the Deep Space Exploration Laboratory to help develop lunar payloads.
2025	Firefly Aerospace adds Rashid-2 to Blue Ghost Mission 2, bound for the far side of the Moon.	10 December Arab Satellite 813 launches on a Lijian-1 rocket from the Dongfeng Commercial Space Innovation Pilot Zone.
2026	March NASA pauses Gateway, the lunar station the UAE airlock was designed for, and plans a base on the surface.	

The UAE's lunar and satellite partnerships with the United States and China, 2020 to 2026.

The Rashid-2 episode

A critical inflexion point illustrates the structural constraints shaping UAE strategy. In September 2022, the Mohammed bin Rashid Space Centre (MBRSC) signed an agreement with the China National Space Administration (CNSA) to fly the UAE's Rashid-2 rover on China's Chang'e-7 mission (SpaceNews, 2022). In 2023, reports citing unnamed sources said that US export controls, including ITAR, had derailed the arrangement (SCMP, 2023; SpaceNews, 2023a). Although it did not become a public diplomatic dispute, the episode illustrated the practical limitations that US regulations can impose on states seeking diversified lunar partnerships.

The UAE subsequently contracted US company Firefly Aerospace to carry Rashid-2 to the far side of the Moon on Blue Ghost Mission 2. As of late 2026, MBRSC has successfully completed the integration of its RTx ground-penetrating radar transmitter onto the rover, marking the final payload preparation phase ahead of its scheduled lunar deployment (Firefly Aerospace, 2025). Concurrently, its engagement with China continued through satellite projects such as Arab Satellite 813 and through university and industry agreements linked to the ILRS. This reflects a broader pattern in middle-power diplomacy: when confronted with regulatory barriers, states recalibrate cooperation toward channels that preserve strategic flexibility without violating major-power constraints.

Managing parallel blocs through institutional diversification

The UAE's approach demonstrates how middle powers can engage parallel lunar architectures while managing geopolitical friction. Rather than choosing between Artemis and ILRS, the UAE optimises a complementary model: high-level hardware infrastructure collaboration with the US and its partners on

lunar missions, running parallel to scientific, educational, and industrial collaboration with China through the ILRS network. This strategy preserves access to both ecosystems, diversifies technological inputs, and enhances national resilience.

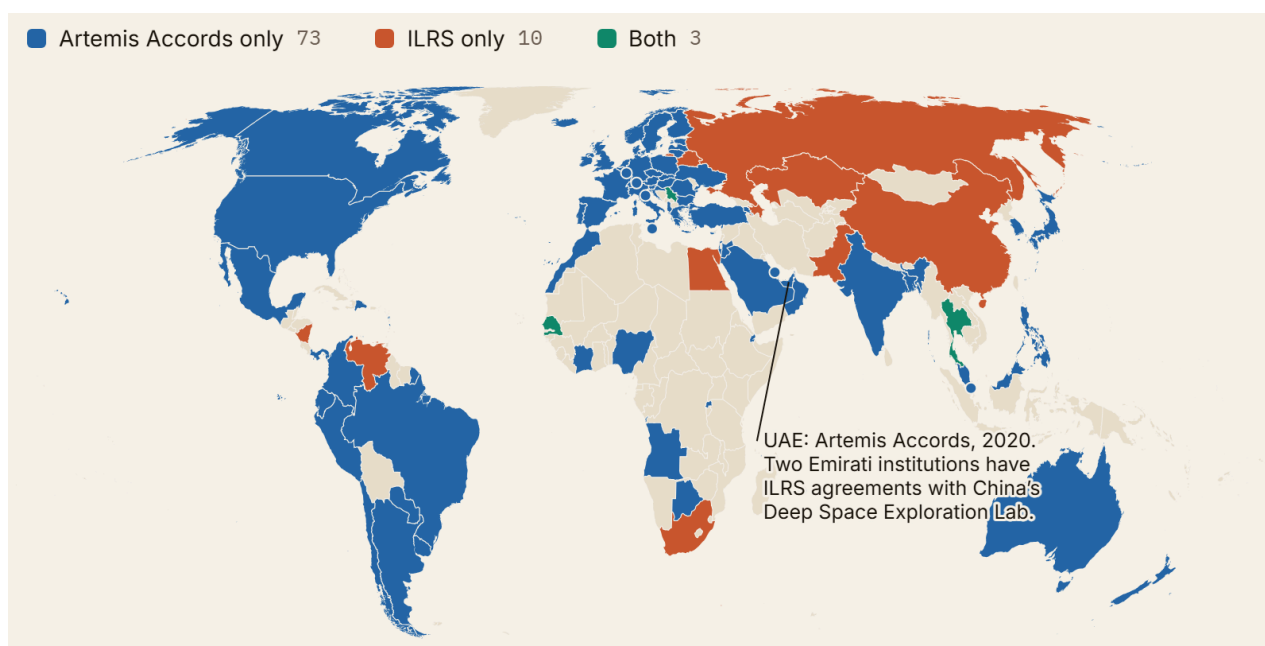
Such hedging need not be merely reactive; it can also reflect a deliberate diplomatic approach consistent with the UAE's emphasis on diversified partnerships. The UAE appears to anticipate that future lunar governance will be shaped by multiple blocs, each offering distinct advantages. By maintaining a presence in both, the UAE can position itself as a bridge actor able to facilitate dialogue, reduce fragmentation, and contribute to shared scientific objectives. The engagement of UAE academic institutions, such as the University of Sharjah, with the ILRS (SpaceNews, 2023b) illustrates how middle powers can engage parallel governance ecosystems while preserving strategic autonomy.

4. International Space Law & Norm-Setting

The emergence of parallel lunar governance frameworks has intensified global debates on space law and norm-setting. China's proposed International Lunar Research Station Cooperation Organisation (ILRSCO), announced as a conceptual framework in 2023 but not yet existing as a formal organisation, is intended to eventually coordinate the ILRS and to build a normative constituency around cooperative lunar development, scientific openness, and shared infrastructure (IFRI, 2024). In the meantime, through bilateral memoranda and joint statements under the ILRS framework, China cultivates partnerships that offer an additional pathway for participation in lunar exploration.

Artemis vs. ILRS: Divergent legal philosophies

The Artemis Accords emphasise transparency and interoperability, and provide for notification and coordination through "safety zones" intended to prevent harmful interference and ensure operational predictability for lunar activities. They also state that the extraction of space resources is consistent with the Outer Space Treaty. In contrast, the ILRS, which has not published a comparable legal text, stresses shared lunar infrastructure, collective scientific facilities, and cooperative resource utilisation as stated aims. However, provisions outlined within China's 15th Five-Year Plan highlight an intentional shift toward the standardisation and regulatory harmonisation of deep-space legalities, indicating that the ILRS framework is transitioning from ad hoc bilateral agreements toward a more institutionalised multilateral legal regime. Both frameworks profess adherence to the Outer Space Treaty. While external European analyses, such as reports by the EU GovLab (2025), characterise China's approach as a 'peripheral partnership' model, the frameworks are broadly read as reflecting different governance philosophies: Artemis is seen as prioritising commercial certainty, whereas the ILRS text focuses on collective development.



Who has joined the Artemis Accords and China's lunar station. As of 10 October 2026. The ILRS shows government-level documents only. Sources: NASA's list of Artemis Accords signatories; CNSA, Xinhua, SpaceNews and other news reports.

The UAE as a normative bridge

The UAE's dual footprint across Artemis and ILRS places it in a distinctive position within this evolving legal landscape. As a state committed to multilateralism, equity, and space sustainability, the UAE draws on its multi-alignment to advocate for widely shared principles. Its leadership of regional initiatives such as Arab Satellite 813, whose open data is intended to serve the environmental and climate priorities of Arab Space Cooperation Group members, reinforces its commitment to environmental monitoring and climate resilience (UAE Space Agency, 2025).

The UAE's foreign policy, characterised by diversified partnerships, offers a conceptual context for this approach. By participating in both governance ecosystems, the UAE may help reduce normative fragmentation: it has expressed support for interoperability, dialogue between competing blocs, and the mitigation of orbital debris and long-term sustainability.

The UAE's diplomatic posture illustrates how middle powers can contribute to emerging norms not by choosing sides, but by engaging multiple frameworks and emphasising shared global interests. In doing so, the UAE suggests how middle powers might contribute to stability within an increasingly multipolar space order.

5. Conclusion

The UAE-China space partnership offers an instructive example of middle-power diplomacy in the emerging multipolar space order. Through strategic hedging, diversified partnerships, and multi-alignment, the UAE illustrates how states can navigate parallel governance frameworks while preserving autonomy and advancing national capability. This approach also has limits: it remains exposed to export-control regimes, to supplier dependencies, and to shifts in partners' programme priorities, as NASA's 2026 decision on Gateway illustrates.

Future space exploration may be shaped less by rigid, Cold War-style alliances than by fluid coalitions built around technical utility, shared scientific goals, and pragmatic cooperation. The UAE's multi-aligned orbit illustrates how middle powers can influence global space governance by engaging broadly, convening regionally, and advocating widely shared principles. As Gulf states deepen their engagement with both Western and Chinese space ecosystems, the UAE's experience offers one illustrative model of how middle powers might participate in lunar governance through diplomacy, capability building, and strategic diversification, although its applicability to other states will depend on their own circumstances.

About the author

Ridima Sur is an astrophysicist and space governance researcher, serving as Professional Development Coordinator at the Space Generation Advisory Council. A member of Chatham House's Common Futures Conversations, she advances work on space sustainability, law, and diplomacy, bridging astrophysics with international policy to shape multilateral governance and global cooperation.

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