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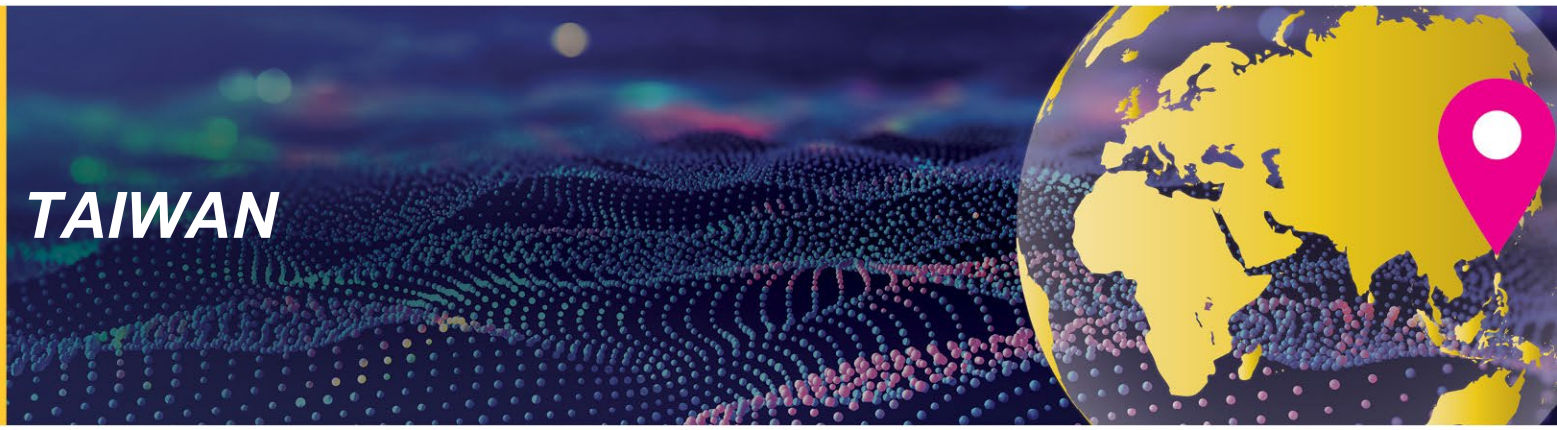

TAIWAN

Katherine Melbourne and Austin Hillebrandt

Space operations have become increasingly global. Whereas only a few decades ago, a couple of major government powers dominated space, now more than 70 countries own or operate active satellites in orbit. One of these space actors making an impact in the global space industry is Taiwan. This brief provides an overview of Taiwan's space activities and is part of a series of country and regional profiles that highlight domestic context, space development, diplomatic activity, and opportunities for collaboration with the United States.

Introduction

Taiwan has had a development program for space in place for nearly 35 years, but the last few years have been particularly momentous for the island's space program. In 2021, the Taiwanese government passed its first piece of space legislation, which covers the development and regulation of the burgeoning Taiwanese space industry. In 2023, the Taiwanese government established the Taiwan Space Agency. Most recently, in March 2025, Taiwan selected a national site for its pursuit of orbital launch. Taiwanese leaders have also begun emphasizing the connection between space and security in recent years, having seen the crucial role that satellite communications and space-based intelligence, reconnaissance, and surveillance (ISR) data have played in Ukraine's defense against Russia. This recent focus on using space for security purposes is a notable shift from Taiwan's historical emphasis on the use of government-built space missions to study regional weather and climate patterns.

These security considerations are crucial given the threat posed by the People's Republic of China (PRC). U.S. intelligence officials have reported that Chinese President Xi Jinping directed the People's Liberation Army to be militarily capable of invading Taiwan by 2027.[1, 2] While the air, sea, and land dimensions of a potential Chinese invasion have received substantial attention, Taiwan's forthcoming efforts to use space as a means to bolster its security have often been overlooked in the public literature.

Given the intensity of the threat posed by China (whose southeast shore is only 100 miles away), Taiwan presents an edge case for nations or actors that are pursuing space capabilities for security purposes. Taiwan is seeking to use space to enhance its security through multiple approaches; these include balancing capabilities to develop and own themselves versus capabilities to procure from foreign commercial and government partners, tightening relations

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with foreign partners (such as the United States), and embedding itself into global supply chains for space to ensure international partners will come to Taiwan's assistance, if needed.

Regional and Geopolitical Context

Taiwan's relationship with China shapes its policy decisions, including its interests in space. Taiwan must contend with the constant threat of invasion and coercive actions from mainland China. While China and Taiwan have avoided a direct military confrontation since the Chinese Communist Party's victory in the Chinese Civil War, the relationship is far from settled. Both entities continue to live with different perspectives about Taiwan's independence.[3] This delicate status quo has been challenged as China has increasingly engaged in threats and aggressive behaviors in the region. In October 2024, during a celebration of the 75th anniversary of the Chinese Communist Party rule, Chinese President Xi Jinping reiterated his intent for "complete reunification" of Taiwan with China.[4] If reunification were to occur via military force, the implications would not be regionally limited; a conflict over Taiwan would disrupt international supply chains and could have a major effect on the global economy.[5, 6, 7]

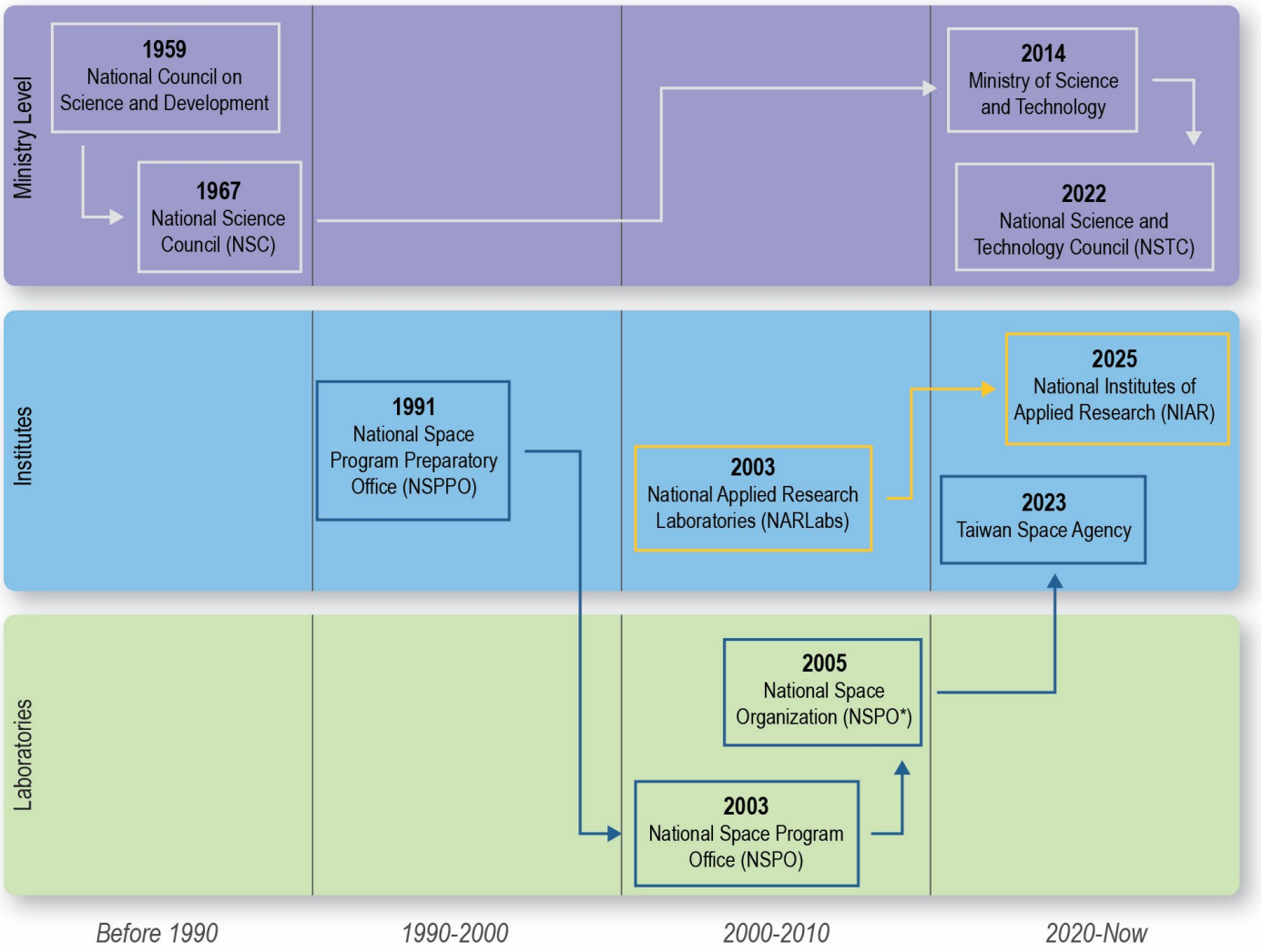
As a result of PRC belligerence, Taiwan has bolstered its defense efforts, including a push for space technology to enhance security. Ukraine's use of low Earth Orbit (LEO) broadband constellations and space-data distribution may serve as an example to Taiwan of how space can alleviate strategic vulnerabilities.[8,9,10] In Taiwan's case, space-based capabilities may add resilience for communications by providing backups for undersea cables. According to Taiwanese authorities, Chinese-owned and operated vessels are suspected to have repeatedly–and as recently as February 2025–severed undersea cables in the region that provide internet to Taiwan.[11, 12] China is also increasing its military presence in and around the Taiwan Strait.[13] These threats, combined with uncertainty about the amount of support Taiwan would receive from other countries in a conflict with China, are driving Taiwan's pursuit of more self-reliance in space.[14, 15]

Turning toward Taiwan's geography, the region's unique weather and climate patterns were a motivator for Taiwan's first government-led space missions. Situated approximately 100 miles to the east of mainland China, Taiwan is exposed to heavy rainfall during typhoon season and regularly experiences earthquakes.[16] Additionally, mountains cover the majority of the island to the east; such topography, combined with extreme weather events, makes the island prone to landslides and flooding.[17] Taiwan's initial scientific satellite payloads focused on remote sensing for meteorology, oceanography, and atmospheric science, and have become more advanced as its technological capability grows, allowing for improved environmental monitoring and expansion to security uses.

Taiwan's Space Governance

Taiwan's formal entrance into space took place in 1991—accompanying the island's process of democratization throughout the decade—with the establishment of the National Space Program Preparatory Office (NSPPO).[18] Originally operating directly under the auspices of the National Science Council (a ministry-level agency), NSPPO was renamed the National Space Program Office in 2003 and began reporting to the newly formed National Applied Research Laboratories (NARLabs).[*] In 2005, NSPO was once again renamed the National Space Organization (NSPO), still operating under NARLabs. In 2022, Taiwan passed legislation to establish the Taiwan Space Agency (TASA) in place of NSPO, which again elevated the office to report to the ministry-level National Science and Technology Council (NSTC, previously known as the National Science Council).[19] As of its creation in January 2023, TASA is an administrative corporation, an organization owned by the government of Taiwan focused on developing public-private partnerships, responsible for managing the execution of Taiwan's goals in space.[20] Figure 1 provides a timeline of these name and authority changes.

[*] In 2025, NARLabs was renamed National Institutes of Applied Research (NIAR).



The agencies at a lower level report to the agencies at a higher level. An arrow indicates a renaming. Different colors designate different organizations. Only the space authority structure is shown; other organizations are not included.
*Note that in 2005, the National Space Program Office changed names to the National Space Organization, but kept the same acronym, NSPO.

Figure 1. Hierarchy and evolution of the various space-related Taiwanese government organizations from 1959 to now.

Although one of TASA's stated primary goals is supporting national security, it remains strictly separate from the Ministry of National Defense, perhaps to avoid provoking China.[21] However, the Taiwanese military also does not have dedicated space forces nor a space defense culture. Previously, the National Chung-Shan Institute of Science and Technology (NCSIST), also a state-owned administrative corporation and Taiwan's primary weapons manufacturer, had limited involvement in space on behalf of Taiwan's Ministry of National Defense. NCSIST had been working to develop satellite launch capabilities, along with other broader missile technology development efforts.[22] Today, TASA is leading the government's space launch research and development process, including the research from other space technology development efforts (including those of NCSIST), which have been transferred to TASA for centralized management.[23]

TASA works closely with other domestic governmental agencies on its space programs throughout the space system lifecycle, including strategy, manufacturing, and data applications. For example, TASA (then operating as NSPPO) has worked with the Center for Weather Administration (CWA) since 2002 on atmospheric data analysis; the agency signed a Memorandum of Understanding (MOU) with CWA again in 2024 to

continue collaborating.[24] The Ministry of Economic Affairs (MOEA) and the Industrial Technology Research Institute (ITRI) are working with TASA on building subsystems of a satellite constellation to be owned and operated by Taiwan.[25] Other agencies also are leading space programs in Taiwan, but without direct TASA involvement. Case in point: the Ministry of Digital Affairs (MODA) is focused on building digital and communication network resiliency and is helping to coordinate the expansion of infrastructure compatible with foreign satellite broadband providers throughout Taiwan.[26] Taiwan's domestic commercial sector is generally heavily involved in these government-sponsored space projects, building satellite components and subsystems for TASA and other governmental organizations.[27] The Taiwanese government, in turn, often stimulates the growth of private space companies by both investing in the industry and helping with conducting space-testing of commercial products.[28]

The recent growth of the space industry has prompted Taiwan to focus on domestic space legislation. In 2021, the Legislative Yuan, the government's unicameral legislative body, passed Taiwan's first space legislation, the Space Development Act.[29] The Space Development Act articulates Taiwan's "Basic Principles of Space Development," committing to honoring international space treaties, promoting environmental sustainability both on Earth and in space, and fostering public enthusiasm and knowledge about space. The act also addresses launch regulations, space-based data rights, and promotion of domestic industry through partnerships with the private sector. As the ministry-level agency, the NSTC has the authority to carry out the act, and with NSTC oversight, TASA's ongoing and upcoming missions have been well aligned with the act as well.

Taiwan's Space History: Building a Technological Base with a Climate Focus

Taiwan's vision for space is laid out in its National Space Technology Long-Term Development Program, which has been ongoing since 1991 and is subdivided into three phases. While the vision for each stage has remained the same since the program's inception, there have been some changes to the specific missions under each phase of the program. Phase 1 can be characterized as a training period, where Taiwan worked closely with foreign partners to build space systems and gain requisite knowledge of space engineering principles. Growing in capability, Taiwan completed building its own domestically manufactured satellite during Phase 2. During Phase 3, originally planned for 2019 through 2028 but recently extended, Taiwan seeks to launch one satellite a year for national security and environmental monitoring purposes.[30] Even though planned payloads in Phase 3 still include satellites dedicated to meteorological and atmospheric science, having security as a strategic driver of Phase 3 represents a marked change compared to Taiwan's past emphasis on climate and weather safety missions.

In addition to testing Taiwan's technological limits, a goal of nearly every domestic space mission pursued from 1991 until the end of Phase 2 in 2019 was to study the atmosphere or monitor the environment, both for long-term climate patterns and real-time disaster relief, as evidenced by the payloads noted for each mission in Figure 2. Launched by the United States in 1999, FORMOSAT-1 was Taiwan's first satellite, followed by FORMOSAT-2 in 2004. Taiwan's first satellite constellation, FORMOSAT-3 (also known as the Constellation Observing System for Meteorology, Ionosphere, and Climate, or COSMIC), was launched in 2006.[31] All three missions were supported by foreign partners, namely the United States and France, and were launched by U.S. providers. More than 10 years later, in 2017, FORMOSAT-5 began operations as the first space program where NSPO independently performed satellite and payload systems engineering and integration.[32] FORMOSAT-7, a follow-on to the original COSMIC program, soon followed in 2019, completing the goal of Phase 2 to increase indigenous space capabilities.[33]

Taiwan also carved out a niche in micro- and picosatellite development for atmospheric science but faced numerous obstacles in progressing these programs. In Phase 1, the YAMSAT program, which paired government and academia, effectively miniaturized manufacturing to develop a 10-centimeter CubeSat weighing less than a kilogram.[34] In Phase 2, FORMOSAT-6 was a planned set of three microsatellites with multispectral imaging capabilities designed by a university in Taiwan.[35] However, after facing different international pressures, both programs were ultimately cancelled in 2002 and

2010, respectively; still, they helped Taiwan build a strong technological base that continues to support the government's ongoing efforts in space, including new plans for CubeSats with commercial applications.[36]

Although satellite missions often receive the most attention, Taiwan has also successfully launched a series of small rockets for both atmospheric science and engineering development research. Between the launch of its first sounding rocket in 1997 through 2019, Taiwan launched more than a dozen sounding rockets.[37] Following a sub-orbital missile trajectory and reaching a maximum altitude of 200-300 kilometers, these sounding rockets took advantage of Taiwan's geographical proximity to the equator, providing scientific insights about equatorial ionosphere irregularities.[38] Taiwan's academic institutions and private companies still use sounding rockets as a technological proving ground.

The innovations of missions under development in Phase 3 will both improve the scientific capability of Taiwan's space program and allow the program to take advantage of space for its security. Taiwan investments are increasing to accommodate these more expansive goals. The government recently extended Phase 3 from ending in 2028 to 2031 and allocated $40 billion NT ($1.2 billion USD) in funds in addition to the original $25.1 billion NT ($840 million USD) budgeted.[39] The Beyond 5G program will prove out Taiwan's capability to build a LEO broadband constellation with support from domestic space companies. Additionally, the next set of FORMOSAT satellites, FORMOSAT-8 and -9, will feature high-resolution optical imaging and synthetic aperture radar (SAR), respectively. SAR technology will allow Taiwan to observe and assess activity patterns at Chinese military and nuclear sites, regardless of time of day or weather.[40]

Taiwan's Space Strategy: Designing for Defense

As evidenced by the ongoing missions in Phase 3 of the long-term development program, Taiwan's efforts in space have shifted toward security as a primary focus, with a secondary focus on economic growth. Taiwan is pursuing increased security through space by balancing its

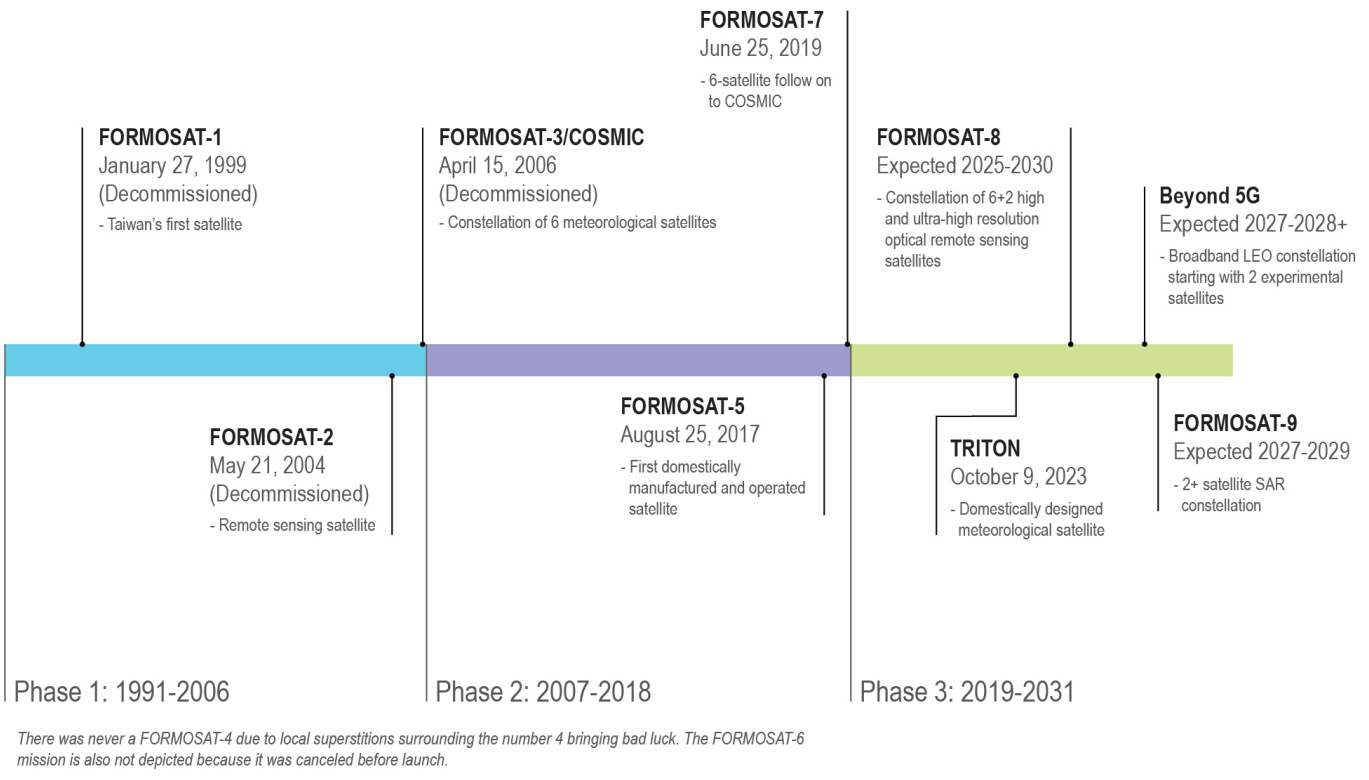


Figure 2: The three phases of government-led satellite missions in Taiwan's National Space Technology Long-Term Development Program.

development of domestic and partnered space capabilities, and it aims to support both security and economic growth by finding a niche in the global space supply chain.

Balancing Domestic and Partnered Capabilities for Space. Taiwan has been steadily pursuing the buildup of its domestic space capabilities since its space program began, and the potential security benefits of self-sufficiency have recently increased Taiwan's motivation for autonomy. However, foreign partnerships, both intergovernmental and commercial, will continue to be an important component of Taiwan's security and access to space. Taiwan's FORMOSAT-5 is an example of such a partnership. The satellite was heralded a Taiwanese "technological feat," with the government taking full responsibility for its development and with all major subsystems being designed and manufactured in Taiwan; however, some components for the satellite were made in Germany, and a U.S. rocket launched the satellite.[41] As Taiwanese leadership pushes broadly for self-sufficiency in space, Taiwan's pursuit of autonomy in space is limited to certain mission areas and systems. This hybrid approach to using domestic and foreign commercial capabilities can be seen in its core space development priorities: communications, launch, and remote sensing.[42]

Communications. Taiwan is exploring how broadband satellite constellations could bolster its defense. TASA began work on the Beyond 5G broadband satellite constellation in 2020.[43] Designed to provide space-based connectivity from LEO, Beyond 5G will start with two experimental satellites (B5G1A and B5G1B) to be launched in 2027 and 2028. TASA is managing the project and building the bus; the payload and ground equipment are supported by ITRI and MOEA, respectively. Once the first two satellites have been built, the government plans to shift more manufacturing responsibilities to private contractors and develop four more satellites for the constellation.[44] The long-term goal, aligned with the vision of domestic space industrialization touted by leadership in Taipei, is to stimulate industry by continuing to manufacture Beyond 5G satellites after the first six. This would make the island's broadband access more robust and resilient.

In addition to Beyond 5G, Taiwanese leadership have determined they need additional capability for space-based connectivity. Taiwan started negotiating with foreign commercial providers of satellite internet in 2018.[45] When deciding between various providers, Taiwan leadership had to determine which companies to trust based on their perception of each organization's relationship with China. They also needed to find a partner comfortable with their legal requirement of 51 percent local ownership in a telecommunications joint venture.[46] In 2023, Taiwan announced its partnership with SES and OneWeb (both European and privately owned satellite constellations) to conduct a proof of concept for using non-geostationary satellite orbits to establish redundant lines of communication across the island.[47] Throughout a two-year, government-led program, the collaboration verified the use of foreign satellites as emergency and security backup. Taiwan deployed and tested satellite terminal equipment at 700 domestic and 3 international locations, as well as 70 backhaul sites to extend coverage.[48] As of October 2024, the island achieved 24/7 satellite broadband coverage from this international partnership. Taiwan is also in conversations with Amazon Kuiper as another potential broadband provider, as the U.S. company plans to roll out services to customers in late 2025.[49]

Launch. Taiwan has returned its attention to launch as part of Phase 3 of the long-term development program, in part to increase self-reliance for access to space.[50] In the 1990s, Taiwan made a choice to focus on satellite development after seeing the political cost imposed by the Missile Technology Control Regime (MTCR) on countries pursuing launch capabilities.[51] Two decades later, FORMOSAT-6 satellites were to be launched on a domestically developed Taiwan space launch vehicle (TSLV), but the United States opposed the idea of a TSLV due to Washington's broader goal of nonproliferation and likely to prevent provoking China. Both FORMOSAT-6 and the TSLV were abandoned shortly thereafter.

In January 2025, U.S. policy loosened export controls on defense technology and relaxed guidelines for adhering to the MTCR, which allows emerging space powers more freedom to pursue launch as part of their space programs.[52] Having launched its first domestically designed two-stage sounding rocket in 2022, Taiwan is poised to take advantage of the MTCR policy change.[53] TASA is targeting 2030 for test flights of a government-

designed orbital launch vehicle, and the private company Taiwan Innovative Space Inc. (TiSPACE) is continuing to develop a private orbital launch vehicle.[54,55] Additionally, Taiwan concluded an extensive national orbital launch site selection process in March 2025, selecting Pingtung County to host Taiwan's ongoing sounding rocket launches.[56]

While Taiwan makes incremental progress toward domestic launch capabilities, it continues to rely on foreign commercial launch providers for access to orbit, and by extension, for space-based defense capabilities. TASA has used U.S. launch vehicles from Lockheed Martin, Northrup Grumman, and SpaceX for its FORMOSAT satellites and most recently launched TRITON using the French Arianespace Vega rocket. Before a national launch site was selected in Taiwan, TiSPACE was coordinating with both Australia and Japan as hosts for its launch tests; however, technical and legal complications have led to significant delays in both countries.[57] As target launch milestones approach for upcoming government-led satellite programs, Taiwan will still need to use foreign launch providers to ensure the success of these future missions.

Remote Sensing. Taiwan is also building a fleet of higher resolution remote sensing satellites for its next two national space missions. Currently collecting data from LEO, FORMOSAT-5 offers panchromatic and multispectral imaging at a resolution of 2 and 4 meters, respectively. FORMOSAT-8 will be a significant upgrade; six satellites will be capable of providing meter-level resolution and two will be capable of submeter-level resolution. Taiwan is planning two satellites with one potential follow-on for the FORMOSAT-9 mission, with each satellite carrying an X-band SAR payload with 1-meter resolution. Remote sensing data is critical for analyzing agriculture, urbanization, the impact of natural disasters, and intelligence. FORMOSAT-8 and -9's improvements in resolution, the addition of SAR, and a significant increase in data availability will allow Taiwan to respond to threats—both natural and military—based on near real-time information.

Similar to its approach for satellite communications and launch, Taiwan is using foreign commercial providers in addition to developing its own capabilities. For example, Taiwan's Council of Agriculture Executive Yuan has procured electro-optical imagery from Planet Labs for detecting crop growth to develop a growth forecasting model.[58] Although this is for civil purposes, such imagery could also be used for national security applications.

Foreign Partnerships in Other Space Capability Areas. As Taiwan seeks additional self-sufficiency in space communications and launch, the island is still building strategic relationships with growing space powers while maintaining relationships with its traditional partners, such as the United States and France. Many of these intergovernmental and commercial relationships begin with broad agreements to help stimulate collaboration. Taiwan signed an MOU with India to share information, perform educational exchanges, and explore commercial ventures when possible.[59] The Japanese company ispace agreed in December 2024 to discuss strategic lunar exploration opportunities for collaboration with TASA.[60] This was in addition to a 2023 joint meeting between the Japan Aerospace Exploration Agency (JAXA) and TASA called the Japan-Taiwan Space Economy Co-creation Workshop, which was held in Tokyo.[61] South Korea—a country with indigenous launch capabilities and bold visions for space—has recognized the strategic importance of Taiwan as well.[62]

More broadly, NSTC (the ministry-level agency to which TASA reports) has signed 135 international cooperative agreements and MOUs with 43 countries and 3 international organizations.[63] TASA also hosts an annual conference called the Taiwan International Assembly of Space Science, Technology, and Industry (TASTI) to foster additional international collaboration. During the week-long conference in 2024, TASA signed agreements with Poland, Paraguay, and France.[64] The geographical diversity of the MOUs signed at TASTI is a sample of the breadth of relationships Taiwan is building with both established and emerging spacefaring nations.

Moving forward, Taiwan will have to consider how to best translate broad commitments to cooperate across a variety of space technology sectors into meaningful, mutually beneficial actions in its bilateral and multilateral relationships. Taiwan will also need to periodically reassess how its balance of domestic programs and

international partnerships across the space sector is impacting its long-term security goals.

Embedding into Global Supply Chains. The pursuit of economic growth and increased security through embedding Taiwan's space industry into global markets has guided Taiwan leadership's visions for the domestic space industry. In his inaugural speech, Taiwan President Lai Ching-te called for the island to be an "Asian hub" for space and drones, naming it a "key player in supply chains for global democracies."[65] His predecessor, President Tsai Ing-wen, also included space under the "national defense and strategic industries" core strategy to integrate Taiwan into essential global supply chains.[66] During a visit to NSPO in 2021, then-President Tsai articulated a succinct goal that has since guided Taiwan's approach to space: The government should prioritize finding a space supply chain "niche with a strategic significance"—one for which other countries will rely on Taiwan—that the government will support legally and financially.[67]

There are many options that could qualify for this niche in space. Looking at industry trends, the majority of private entities involved in space in Taiwan contribute by manufacturing component materials for space systems and by leveraging knowledge of other fields for use in space.[78] Some domestic companies specialize in integration and assembly, which could be another area of expertise to leverage and apply to space.[79] Additionally, Taiwanese manufacturers are already taking advantage of the increased production needs of proliferated satellite constellations and have become integral suppliers to large satellite companies around the world.[80] And by building holistic domestic space capabilities through the government's historical focus on learning from more experienced foreign partners, Taiwan has also created a robust industry for satellite operations and data analysis.[81]

For Taiwanese leadership, being a part of global supply chains is not just an economic driver but also a contributor to overall security. Taiwan's semiconductor industry is a prime example of how Taiwan has found a strategic niche and integrated itself in global markets, simultaneously boosting the island's security and economy.

At this relatively early stage in Taiwan's space industry, a decisive niche has yet to emerge that would redefine the domestic space industry for Taiwan like the semiconductor did for Taiwan's electronics industry. Additionally, the geopolitical environment has changed significantly from when Taiwan's semiconductor industry was taking root, and the island will not likely be able to reach the same level of global reliance on Taiwanese space technologies that it achieved with semiconductors.

Taiwan's Semiconductor Industry: A Case Study and Comparison

Spurred by government investment and efficient manufacturing processes (as well as increased global demand for electronics), Taiwan's semiconductor industry experienced exponential growth in the 1970s and 1980s and is now responsible for more than 60 percent of the world's semiconductor supply.[68,69] Computer chips are made using semiconductors, and Taiwan's chip manufacturing enterprise comprises more than 90 percent of the total global chip manufacturing capacity.[70] As demand for products that rely on semiconductors grows, it becomes more evident that semiconductors have enmeshed Taiwan in the global supply chain.[71]

The Taiwanese government is applying its knowledge of how the government helped grow the semiconductor industry as a model to industrialize space and find a similar niche within the field.[72] ITRI has traditionally played a role in incubating Taiwanese startups through the organization's research and development, and in 1987, was pivotal in founding the Taiwan Semiconductor Manufacturing Company (TSMC), the world's largest computer chip manufacturer.[73] For space, ITRI is leading the Taiwan Accelerator Plus (TAcc+) Space Tech Startup Supporting Program that annually selects startups to receive training in space and to create cross-sector partnerships.[74] The program attracts international startups in the Asia-Pacific region to Taiwan, and Taiwan-based startups receive support in establishing themselves in global markets.[75] TASA is taking a similar approach with its incubator program to support the domestic space industry's manufacturing supply chain.[76] Both programs rely on building a relationship between Taiwan's government, academic institutions, and private companies—a strategy also used by the semiconductor industry—to spur innovation and attract more talent.[77]

Still, Taiwan's broad, cross-industry technical expertise may make it possible to identify an area within the space industry in which Taiwan can establish itself as a world-class option, leading to gains in both economy and security.

The Perspective of the United States

Taiwan represents a critical source of continued tensions between the United States and China. From the U.S. perspective, Taiwan's growing interest and investment in space creates opportunities for the island to become more capable of defending itself. To accelerate Taiwan's progress toward increased self-reliance, U.S.-provided defense support to Taiwan going forward may be more focused on space. However, it is challenging for the United States to explicitly support Taiwan due to the complex history of U.S.-Taiwan relations. Since the United States adopted the "One-China policy in the 1970s and broadened the scope of the policy with the Taiwan Relations Act of 1979, the United States has been able to engage formally with China while maintaining *unofficial* diplomatic relations with Taiwan.[82] The United States maintains ambiguity as to whether it would defend Taiwan in a fight against China; however, this ambiguity has created unease between the United States and the PRC. Even subtle changes in the United States' tone toward Taiwan elicits a negative response from China. In February 2025, the United States Department of State updated its website, maintaining its official "One-China policy" but removing language that the United States would not support Taiwanese independence. China promptly urged the United States "to correct its mistakes."[83]

Despite the risk of worsening U.S.-China relations over Taiwan, the United States remains strategically invested in Taiwan's capacity for self-defense. In late 2022, Congress authorized and funded the first military aid from the United States to Taiwan since 1979 and has continued to fund more military aid ever since.[84] Taiwan has also historically been one of the biggest purchasers of U.S. foreign military sales (FMS), with space-related FMS primarily focused on ground equipment for communication satellites.[85] There is bipartisan support in the United States for bolstering Taiwan's defense so that it can maintain its democratic processes, including its competitive multiparty elections.[86,87] Due to the strong link between space and security, U.S. military support may extend more to space in the future, even if only in an advisory position. Additionally, amidst heightened trade tensions with the United States, Taiwan President Lai Ching-te has committed to remaining engaged with the Trump administration to find mutually beneficial opportunities for both governments in research, manufacturing, and defense.[88]

The United States has supported emerging foreign space programs through civil space and science research exchanges, and similar opportunities for collaboration exist with Taiwan, albeit more limited in scope. NASA does not yet have a formal relationship with TASA and, unlike other foreign partners, Taiwan is unable to sign the Artemis Accords due to the "One-China policy." Taiwan has the capability to unilaterally announce adherence to the principles of the Accords, but in doing so could risk provoking China. Gaining traction on formal exchanges through Congress has also proven difficult. The proposed "TASA Act," introduced in 2024 to expand collaboration between TASA, NASA, and the National Oceanic and Atmospheric Administration (NOAA), failed to move forward; the Taiwan Fellowship Act (which would allow U.S. government employees to spend extended time living in and learning about Taiwan) was signed into law in 2024 but never implemented.[89] Still, these challenges have not prevented U.S.-Taiwan collaboration elsewhere in space and science. In 2020, the United States and Taiwan initiated a Science and Technology Agreement, followed by an official dialogue with a U.S. delegation sent to Taipei three years later.[90] In 2022, the United States and Taiwan signed an MOU for continued collaboration on FORMOSAT-7 through 2030 or the end-of-life of the satellites in the program.[91] Valuable research connections have also formed at the sub-national level; in 2023, Stanford University established a Taiwan Science and Technology Hub to facilitate joint research and workforce development opportunities.[92] Despite the obstacles impeding formal relations with Taiwan, civil space and academic research are promising areas to continue U.S.-Taiwan engagement.

Conclusion

Taiwan receives international attention for its precarious balancing point among geopolitical tensions and its industrial importance with an emphasis on semiconductors, but it is also gaining global recognition for its contributions to the space sector. Taiwan is investing in defense-capable space technologies and encouraging the growth of domestic industry while simultaneously strategically strengthening its relationships with foreign partners in space. Committed to supporting Taiwan's self-defense, the United States should look for additional opportunities to cultivate the growing focus on space in Taiwan, including through research collaborations and information sharing where possible.

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About the Authors

Katherine Melbourne is a national security space analyst at The Aerospace Corporation's Center for Space Policy and Strategy. Her research focuses on applying technical insights to policy, and her experience in the space industry spans observational astronomy research, international relations, and systems engineering. Melbourne received her bachelor's degree in astrophysics from Yale University and her master's degree in aerospace engineering from the University of Colorado Boulder.

Austin Hillebrandt is a former Center for Space Policy and Strategy intern. His research interests focus on military affairs in the space domain. Hillebrandt received his bachelor's degree from The College of William & Mary and his master's degree in international affairs from the Bush School of Government and Public Service at Texas A&M University.

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