

Southern Polar Dominance: **China's Strategic Rationale for an Antarctic Polar Policy**

by Phil Kerber and John P. Ringquist

In the new era of strategic power competition with the People's Republic of China (PRC), the Antarctic region presents unprecedented opportunities in commerce, strategic posture and natural resource exploitation. Growing Chinese presence in the southern polar region and Antarctica, specifically coupled with new technology investments in icebreakers, satellite tracking stations, and scientific exploration vessels, demonstrates the will and capability to develop options for sustained commerce, posture, and resource exploitation in Antarctica and the surrounding waters. China regards its presence and activities in the Antarctic region as essential to its global ambitions.

The Arctic region has acquired a position of national prominence since President Xi Jinping came to power in 2012; in November 2014 Xi Jinping announced in a speech that China wanted to “better understand, protect and exploit the Antarctic.”¹ Liu Cigui, director of the China State Oceanic Administration in 2014, identified China's commercial and scientific interest in the Antarctic during the signing of an agreement with Australia on the Chinese icebreaker *Snow Dragon*. China has engaged in Antarctic scientific missions since the 1950s and regards its presence in the Antarctic as proof of its seriousness to increase its role in Antarctic governance. Liu stressed that China regarded the period 2015-2030 to be a period for increasing China's claim to be a polar

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power.² China has pursued those commercial and security goals through a policy that China has pursued with vigor by spending more than any other Antarctic state on icebreakers, planes, and bases.³ China's exploration and engagement with Antarctica reveal a strategy for future posture and resource exploitation that challenges the established rights of other polar states and cements China's interests in a geostrategic region. Some of the answers lie in the wording of the Antarctic Treaty. It prohibits military activity, bases, weapons testing and maneuvers in the Antarctic, but it permits scientific research, as well as personnel and scientific data exchange. The treaty also covers the area to sixty degrees south, which includes the waters around Antarctica as well as the continent.⁴ China's research stations are part of a strategy to draw together regional commercial interests, shared security projects, and China's geostrategic plans for telecommunications and space. The military is part of these plans and operates through overt military diplomacy and opaque Chinese scientific mission manning choices.

Science, Research Stations, and Dual-Use Technologies

China has worked with Belt and Road partners for access to their ports and infrastructure to support the Chinese vision for Antarctica. China's Argentinian and Chilean partners also have sectors of Antarctica under their jurisdiction and those continental claims could be useful to China in the future for commercial development alongside Argentina and Chile. China has also made establishing and expanding its physical presence in Antarctica a priority. Although China's Quinling Station is in the Antarctic sector assigned to Australia, the latter lacks China's resources. China relies on Australia to support its territorial presence because China lacks an assigned sector of Antarctica. Australia's sector encompasses forty-two percent of the Antarctic continent,

but it isn't an exclusive territorial claim and agreements between Australia and China have allowed China to establish research stations. China in turn has relied on claims of scientific exploration to justify increasing the number and size of its scientific research centers and bases. China is also engaged in research in Antarctic waters that could have dual use applications for commercial as well as military purposes.

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The importance of Antarctic waters to shipping has increased significantly over the last decade and observers from Oxford University claimed that hundreds of ships were traversing the southern waters transforming the region into a power projection hub.⁵ China has systematically increased the number of hydrographic surveys that its vessels conduct. As of 2024, China had completed forty-one Antarctic scientific expeditions and has a fleet of three icebreakers capable of operating in the Arctic or Antarctic. The forty-first expedition was ostensibly similar in scope to other international efforts encompassing studies of climate change, surveying of the surrounding Antarctic waters, and Antarctic ice sheets. However, the Chinese expedition is also conducting construction and expansion of the five existing scientific research centers in Antarctica.⁶ Although scientific research centers are not excluded by the Antarctic Treaty, China has made no secret of their intention to use the research centers for research with direct military and commercial applications that violate the spirit and word of the treaty.

Chinese scientific research centers in Antarctica pose a unique security threat to scientific partners and western scientific research centers in Antarctica because of their

military-civil fusion (MCF) strategy that is likely providing the Chinese military with data that identifies routes for icebreakers, salinity levels, and underwater hydrographic survey results that could influence future submarine operations and map undersea communication cable locations. Further, since China's first expedition and membership in the Antarctic Treaty System (ATS) in 1983, China has built five stations and will complete a sixth by 2025. By early 2000, China was a consultative party with voting rights in the ATS, and by 2024, it is

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suspected that China is using its research stations to conduct surveillance, intelligence gathering and underwater warfare research. Expanding Chinese presence in Antarctica could support future claims for a permanent presence and rights to resources should the ATS be renegotiated.⁷ The United States (U.S.) has one research station in the Antarctic and when the explosive growth of Chinese research station numbers, size, and capability is considered in conjunction with unauthorized (PLA) presence at those stations, China's claims of transparency should be held suspect.⁸

Antarctic Data Collection – Science as Justification for Presence and Posture

Another factor to consider regarding Chinese research efforts in Antarctica involves their military-civil fusion law that makes research subject to military appropriation for strategic purposes. Any research that China conducts alone or in conjunction with other countries is subject to appropriation by the Chinese military.⁹

The Chinese State council recognizes that military-civil fusion provides the best route for projecting military power into the Arctic.¹⁰ What Chinese scientists discover is subject to military use, and when the data can be incorporated into China's military strategy through AI analysis or intelligentized data aggregation. Such a law pulls all scientific research under government access, control, exploitation and potential militarization. In one sense, no Chinese research station can ever simply be scientific for civilian research purposes only. Scientific studies in the Antarctic can serve dual use purposes and should be suspected of direct government links to the Chinese PLA where any information of strategic value will be used accordingly. This included research conducted as part of an international team.¹¹ The same scientific information on ice, sea salinity, and sea floors that could be useful to climate change studies could also be useful for China's Shang 3 (Type 093B) Class Nuclear Attack Submarines, which were built for polar use.¹² The data Chinese intelligence efforts are gathering is being actively incorporated into China's operational plans as part of China's efforts to create "informationized" and "intelligentized" AI-driven data to create autonomous battlefield decision making programs. The knowledge of the Antarctic that China lacks is bolstered by sensors and scientific studies in these regions.¹³

China consistently messages itself as a champion for transparency, but its actions in the Antarctic do not match governmental rhetoric. The increasing presence of Chinese ground stations for satellite monitoring as well as their potential role as coordination sites for intelligence collection is a significant security concern. Furthermore, their potential use in an actual conflict in space is a matter of concern to the interests of other nations with research and commercial stations in Antarctica.¹⁴ Reportedly, China plans to increase the number of research stations in Antarctica and expand its Quinling

station to facilitate increased operations. Not coincidentally, the Quinling station is also adjacent oil and natural gas deposits.¹⁵ China's scientific research centers in Antarctica also operate as ground control stations for the thirty or more BeiDou satellites in orbit. The satellites increase China's C4ISR¹⁶ capabilities and could be used for missile targeting, space warfare, and tracking military movements. Chinese military thinkers understand that domination over Antarctica's airspace could control access to Oceania, South America, and Africa.¹⁷

China's Antarctic bases located within previously accepted Australian Antarctic Territory¹⁸ are a concern for Australian historic claim of sovereignty and security. Australia's Antarctic Territory claim covers over forty-two percent of the continent. China's scientific justification for exploring coal reserves, undersea metals deposits, and maritime resource exploitation is an example of how China is defying existing relationships, agreements and treaties to pursue its own interests.¹⁹ China is a member of the ATS, but has developed capabilities and expanded its research stations in the Antarctic for purposes that violate the ATS non-military, scientific-study-focused basis for treaty members activities in the Antarctic.

China's fleet of nuclear-powered icebreakers, expanding bases, advanced communications capabilities, and logistics support expansion are in line with historical pronouncements made by Chinese military and the Chinese Communist Party. China wants Antarctica's krill protein, its mineral resources, and its gas and oil reserves. Additionally, China also looks to develop the Antarctic's potential sea lines of communication to gain new shipping routes south of Australia, South Africa, and Chile.²⁰ The same shipping lanes that would prove useful to commerce would be employed by military vessels seeking to utilize southern routes to gain access to regions of the various continents that conceivably may be less protected. Monitoring and countering

any Antarctic Treaty violations incurred through unauthorized Chinese expansion in the Antarctic will require the Department of Defense to work closely with security cooperation partners in Chile and Argentina. Such cooperation can also deter China from engaging illegal, unreported and unregulated (IUU) fishing or krill harvesting. Such security cooperation relationships can monitor and deter potential aggression from Chinese PLAN and Coast Guard vessels deployed in protection of Chinese commercial interests.

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China at present does not seek international support to overturn existing treaties governing international activities in Antarctica, but China is shaping the environment for maximum exploitation when the time comes. Chinese policy statements confirm Antarctica's future role in China's economic and security plans. Throughout the first two decades of the twenty-first century China has focused on increasing capabilities and technologies while pushing the boundaries of what is possible under current agreements. While China works to create strategic advantage in Antarctica through its physical bases and their respective capabilities, China is also building partnerships to eventually challenge the ATS and the 1991 Protocol on Environmental Protection which prohibit Antarctic mineral prospecting except for scientific research.

Amending the ATS requires China to convince three-quarters of the consultative parties to revise both agreements.²¹ Members of the BRICS (Brazil, Russia, India, China, and South Africa), which are also consultative

members in the Antarctic Treaty Consultative Parties (ATCPs) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), have not currently reached a consensus on challenging the existing agreements. These nation's positions could change if member nations unite in recommending revisions of the treaties in a manner that could conceivably favor their individual or collective national interests.²²

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Contesting China's efforts to amend the agreements in favor of Chinese policy goals will necessitate consistent diplomatic and economic engagement to preserve the existing protocols and rules-based order against growing pressure to make Antarctica's mineral riches available for extraction by the best prepared nations. China will may leverage its Belt and Road partnerships and investments to gain support for its diplomatic and political aims and take advantage of the infrastructure built in nations China can use for logistics support for its icebreakers and other naval vessels. Icebreakers, especially nuclear powered ones are a key component of China's strategy in the Arctic and Antarctic given the distance from Chinese home ports and the need to decrease dependence on foreign partners to sustain those vessels.²³ Chinese plans to exploit Antarctic fisheries are surfacing as its resistance grows to expanding protected Antarctic maritime areas against commercial fishing.²⁴ China's need for maritime protein is a compelling force for its support of IUU fishing in poorly protected waters such as those off Antarctica's coast and Argentina.

China's Military Posture in the Antarctic Region

The Antarctic offers China potential options for military operations and strategic positioning. Chinese strategy considers the polar regions to be strategic terrain on par with the ocean seabed or space.²⁵ China's military has recognized for nearly twenty years the vertical world map that prominently features Antarctica as an official military map since it was unveiled in 2006.²⁶ The map provides an unmistakable guide to where China has chosen to place research stations and logistical support facilities including ports, airfields, and helicopter landing areas. Understanding the waters around the Antarctic also provides China with an opportunity to plan for how it would control access in the future. The Antarctic sea lanes could provide a solution to some of China's strategic dilemmas like competition in the Strait of Malacca. Freighters or warships transiting through Antarctic waters have few transit limitations related to hull size or draft—both transit concerns when transiting the Panama Canal and the Suez Canal.²⁷ The Chinese military document *The Science of Military Strategy* identified the ongoing efforts to reinforce sovereignty rights in the Antarctic through military bases, exercises, and demonstrations as an important way for nations to prevent competitors from undercutting their exploration rights in Antarctica.²⁸ China recognizes that having a voice is not enough and claims must be backed up by physical presence.

Chinese strategy includes using scientific access to gain an advantage for future operations in the Antarctic as well as prevent competitors from gaining strategic advantage from their research. China's professional military literature urges the PLA use every opportunity to engage in polar missions to gain the change to "test equipment, technology and medical support alongside missions that enhance the military's long-distance force projection capabilities,"

while also increasing the use of military transport, ships and special polar vehicles.”²⁹ The military is encouraged to demand the right to exercise these capabilities and to advocate for search and rescue training or mission participation. Such military-civilian fusion increases military capacity with polar monitoring, air, sea, and land maneuver, and operational success in challenging conditions.³⁰ These plans and their exact wording violates the Antarctic Treaty System prohibitions against military activities in Antarctica, so China conducts them as part of its logistics support, scientific research, and sensor testing programs. China’s military continues to actively engage in developing the capabilities necessary to successfully operate in the polar regions.

Other nations operating in Antarctica do use military aircraft to facilitate their scientific missions. However, the U.S. aircraft are openly declared and marked accordingly. They aren’t claiming to be engaged in search and rescue or science missions. They deliver people and materiel. Staging from Christchurch, New Zealand, the U.S. military, through Joint Task Force-Support Forces Antarctica and Operation Deep Freeze, provide “joint service, inter-agency support for the National Science Foundation, which manages the United States Antarctic Program” and Joint Task Force-Support Forces Antarctica (JTF-SFA) “coordinates strategic inter-theater airlift, tactical deep field support, aeromedical evacuation support, search and rescue response, sealift, seaport access, bulk fuel supply logistics, port cargo handling, and transportation requirements for the NSF mission.”³¹ JTF-SFA is able to utilize C-17 and LC-130H aircraft for these missions.³² China utilizes its icebreakers and organic helicopter support to deliver personnel, but mixed into China’s scientific expedition staff are PLA personnel.

China employs the same scientific and legal justifications to advance its interests in the Antarctic. Despite becoming party to the

Antarctic Treaty in 1983 and signing the Madrid Protocol, which banned any military and mining activity until the Treaty could be renegotiated in 2048, China actively expresses interest in Antarctica’s oil, gas, and minerals. The Polar Institute of China mapped Antarctica’s resources and official Chinese documents attempt to justify

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scientific expeditions as preparatory to economic ventures in the Antarctic.³³ The Chinese dual use approach with scientific expeditions also undergirds China’s intent to increase military intelligence and domain awareness. Furthermore, such research enables experience that can leverage benefits in military cold weather operations and establishes the necessary engineering and design knowledge required for a network of Antarctic Ocean listening devices and a fleet of polar-specific satellites.³⁴ Strategic positioning and access to polar resources are China’s goals, poorly justified as development of new shipping routes and scientific research. China has deployed the PLA on multiple occasions to construct and activate high-frequency radar systems that reputedly could block military satellites and interfere with the GPS satellite system.³⁵ China’s moves have been noted by Australia and, in response, Australia has started improving its situational awareness and equipment to monitor China’s efforts.

Australia is attempting to preserve its equities in Antarctica with a ten-year, \$578 million plan to purchase drones, helicopters, and mobile research stations. Although Australia already operates four permanent research stations in Antarctica and the sub-Arctic, it intends to augment its own exploration and surveillance capabilities with the new acquisitions. The

Australian effort intends to explore East Antarctica and map areas previously unexplored by other nations. The drones are intended to also provide surveillance of Antarctic areas that can send real-time information to its scientific centers.³⁶ Australia's acquisition of a new icebreaker will provide a platform from which four medium lift helicopters can operate.³⁷ Other nations in the Antarctic are engaged with China, but in ways that attempt to leverage Chinese development and military programs that assist the nations of Argentina and Chile while also leaving open the possibility for agreements with the U.S.

The Chinese military recognize the value of the polar regions and name them the “strategic commanding heights” implying the strategic value these regions possess.

The Chinese military recognize the value of the polar regions and name them the “strategic commanding heights” implying the strategic value these regions possess. The PRC also recognized the air distance advantages between the two hemispheres that make the polar regions “aviation key positions” that increase flight penetration capability.³⁸ The incentive for Chinese access to airbases and ports in the region is the Chinese offer of development funding and mutual security assistance. China is working hard to ensure access to Antarctica and a regional presence through multiple strategies including diplomatic, military and commercial ties.

Diplomatic and Military Cooperation with Antarctic Polar Nations

Argentina and Chile are of fundamental importance to China's regional strategy due to their proximity to the Antarctic and their physical presence on the continent. Both have

bases capable of operating year-round.³⁹ China's 2015 agreement with Argentina to construct a space tracking and control station with military ties and dual use potential at Neuquen was an important step in China's strategy to increase its operational capabilities in the region. The station is operated by a subsidiary of the PLA and provides communications and spacecraft communications capabilities when these craft pass over the region. This enables data analysis and sharing directly from these satellites or craft as they pass overhead instead of waiting for these surveillance platforms to enter Chinese airspace. Argentina gets access to ten percent of the station's communication time and satellite images as needed for localized targets. In addition to the satellite monitoring center, Argentina arranged for China to build and deliver a replacement for its aging icebreaker.⁴⁰

While China was negotiating rights to build a satellite tracking center in Argentina, it was developing similar arrangements with Chile that, in 2025, have resulted in a Chilean government amenable to Chinese presence in the region and access to facilities that China uses to facilitate its Antarctic mission. The Chinese PLAN has conducted naval exercises with their Chilean counterparts in the Magellan Strait as well as hosting military exchange visits. China also seeks access to the Chilean base at Punta Arenas in order to conduct resupply for its Antarctic stations.⁴¹ China also provides Chile with telecommunications assistance and in 2020 Huawei opened its second AI and Big Data-focused center.⁴² Such a center could serve China's interests by providing it with a way to rapidly analyze and collate large amounts of data such as those generated during scientific surveys in the Antarctic. Future Chinese technical and commercial agreements could encompass dual use in this area of technology much in the same way that China shares imagery with Argentina.

However, not all of China's engagement with these two important nations is welcome.

Chinese fishing ships are conducting harvesting operations in the region year-round and the ships are accused of frequent illegal fishing in Argentinian and Chilean waters. The Argentine Sea is an area of strategic value due to its natural resources, sea lanes, and its function as the gateway to the Antarctic. Both nations note that China's fishing fleet in Antarctic waters is the largest and maintains a year-round presence. The Chinese refrigerated cargo ships anchor at the edge of Argentina's Exclusive Economic Zone and receive fish from ships that frequently turn off their Automatic Identification System to allow them to enter Argentine waters to illegally fish. In the past ten years their numbers have increased approximately 800 percent.⁴³ The Argentine Navy has increased air and sea patrols, but the sheer numbers of Chinese ships are straining resources. Chile and Argentina lack the capacity to contest China's growing commercial and military presence. Diplomatic and security cooperation with the U.S. will be significant in helping these states preserve their claims to Antarctic territory against Chinese efforts to dominate efforts to develop resources despite existing claims and agreements.⁴⁴ The events in Greenland and the Arctic with Chinese economic ventures are echoed in Antarctica with the exception that China is not able to commercially access resources, at least not yet.

Economic Incentives

China's presence in the Antarctic region grows with each passing year. Additionally, in Antarctic regions, often overlooked natural resources such as krill and polar fisheries are under pressure as world demand for agriculture and protein needs grow. Chinese strategy for the polar regions involves a long-term investment in costly tools such as icebreakers. Furthermore, the PRC actively expands its influence and regional presence through exploitation of scientific treaties and economic agreements coupled with incremental attempts to establish

a regional foothold in the polar regions. In 2019 President Xi warned that China needed to be ready for "grey rhino" and "black swan" events. The former means that China must be present to exploit lapses in competitor commitment in the polar regions to shape decision making, whereas the latter communicates that China must be positioned to take advantage of Black Swan crises to its own benefit.⁴⁵

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While the Arctic offers more potential advantage in expediting trade transit between China and Europe, the Antarctic region also offers tremendous potential access to natural resources. A region historically transited for whale and seal hunting in the nineteenth century, the Southern Ocean is perhaps now known most for its vast populations of krill. According to the United Nation's Food and Agriculture Organization State of World Fisheries and Aquaculture 2022 report, 455,000 tons of krill were harvested in 2020 from the Antarctic region. The intrusion of PRC fishing vessels and their reputation for IUU fishing in other parts of the world highlight the danger and great potential to damage Antarctic fisheries. Much needs to be done to establish monitoring and enforcement mechanisms in the region. Nations, including the PRC, could irreparably harm arctic fisheries without firm compliance with international rules and norms such as those provided by agreements such as the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

Aside from Antarctic krill and fish, studies assess vast natural resources exist under the continental shelf and the surrounding Southern Ocean. Some locations explored by Russia indicate there may be upwards of 500 billion barrels worth of oil under some areas

of the Ocean.⁴⁶ The Antarctic Treaty and the subsequent Madrid Protocol, of which China is a signature, currently prohibit development in the area but doesn't exclude the possibility for hydrocarbon exploration and future development if the Antarctic Treaty and Manila Protocol are abrogated or renegotiated. China possesses five substantial "research bases"⁴⁷ located in the Antarctic – Quinling Research Station, a recently opened base rests adjacent to the Ross Sea near the U.S. McMurdo base.⁴⁸ However small, in the future, such stations could serve as monitoring or force projection platforms to secure future security and economic interests in the region.

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The U.S. and other Antarctic Treaty signature nations must continue to strongly reinforce principles in the Antarctic Treaty and Madrid Protocol. Furthermore, treaty members must effectively collaborate across the multinational interagency environment in resource scientific exploration, fishery monitoring and fishery enforcement patrols. The military is not always the best mechanism to protect global environmental interests given global law enforcement capabilities. Strengthening and reinforcing the rules-based order in the Southern Ocean is just as important as such efforts in the broader Indo-Pacific region.

Recommendations for Competition with China in the Polar Regions

Our recommendations are fivefold and concern a mix of material, tactical, and diplomatic efforts. First, we recommend that the U.S. commission additional icebreakers and aircraft for Antarctic operations. As of 2025

the U.S. has two icebreakers, both based in the Northwest United States. President Trump claims that he has ordered forty to be built and international partners have expressed their support for this plan.^{49,50} We recommend that the U.S. dedicate at least three of the new ships to the Antarctic region. This would provide U.S. with the ability to logistically sustain its research stations, as well as provide icebreaking capacity for any U.S. naval forces passing through the region between the SOUTHCOM and INDOPACOM regions.

These icebreakers should be operated through a collaborative relationship between the Coast Guard under the Department of Homeland Security and the Department of Defense. The need for icebreaker polar support for commercial and military activities will necessitate cooperation across government agencies and through multinational relationships. The U.S. must possess sufficient capability to support effective interagency and multinational missions and maintain sufficient polar presence. Supporting our regional alliances will also mean working to cement operational capabilities with Australia on icebreaker missions to support scientific and security imperatives. Although Australia operates one icebreaker and has plans for a second, additional logistical support for research bases will guarantee a sustained polar presence.⁵¹

Aerial platforms such as drones and polar capable LC-130 H aircraft should become part of the effort in Antarctica. Australia and New Zealand are more distant from the continent than Chile or Argentina, but Australia has already dedicated funds for drones and aircraft. It is important to note that China's National Defense University's document *The Science of Military Strategy* identifies the polar regions as an area of special focus for "new issues and tasks for the use of our country's military power."⁵² China is testing new equipment and deploying drones to support its efforts.^{53,54} In the process of

performing scientific studies, Chinese scientists have garnered valuable information about drone capabilities, weather impacts, and sensor functions at a time when efficient and effective drone coverage is one of the PLA missions for Antarctic operational environments. The U.S. needs to deploy drones for similar missions and develop the ability to operate drones in the Antarctic as soon as possible. The 10 LC-130 H polar capable aircraft currently available are divided between the Arctic and Antarctic. The U.S. Antarctic Program (USAP) annually builds and operates two fully operational airports with three permanent runways, plus up to twelve temporary landing sites.⁵⁵ These runways should receive additional construction and maintenance funding/support as well as the creation of drone-capable facilities to increase regional surveillance and awareness.

Our second recommendation concerns the creation of new permanent bases and mobile bases like the Australian model. China has established that permanent presence and persistent expansion of its scientific facilities will continue until challenged or matched by those of the U.S. and its allies. Although we have not discussed Russia, it can be expected to follow a similar path to China in its own preparations for the fisheries and hydrocarbon wealth of Antarctica.

An expanded and permanently resourced series of bases should provide the U.S. with the same sort of data that China is receiving from its own scientific missions while also providing close surveillance on Chinese space capable ground stations in Antarctica and regional sites in Chile and Antarctica. This effort will naturally involve an interagency approach to ensure that the U.S. properly communicates its objectives, counters any Chinese disinformation or cognitive warfare, and a dedicated cadre of scientists and subject matter experts capable of ensuring that U.S. equities are supported domestically and in international bodies. This should not be

deferred. China has demonstrated a willingness to undercut international norms and treaties for its benefit. If the U.S. lacks the ability to contest China should this situation occur, the U.S. stands to lose any potential opportunities to conduct surveys of resources in support of itself or allies before China renders the Madrid Protocol and the Antarctic Treaty irrelevant. China has attempted to use exclusive economic zones in the INDOPACOM area of responsibility. Similar measures could be appropriate for the U.S. and its allies to declare if China attempts the same in Antarctica.⁵⁶

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Our third recommendation for competing with China is to hold China to the same requirements as other ATS signatories. China's facilities should be inspected annually to monitor compliance with the non-militarization clauses of the ATS. If China is employing PLA personnel for military missions, China should not be exempt from inspections if it is suspected of creating space warfare capabilities or unauthorized resource exploration. The failure of U.S. personnel to inspect non-U.S. stations since 2020 has left a gap in awareness of China's activities at its Zhongshan and Dome A Kunlun stations.⁵⁷ This is especially important since the latter is a potential space warfare site and China has proposed that Kunlun be declared an Antarctic Special Managed Area, the first step to declaring an area under Chinese control before the 2048 Antarctic Treaty can be renegotiated.⁵⁸

Our fourth recommendation involves revitalization of existing relationships with regional polar nations. Our relations with NATO, AUKUS, and New Zealand have different

parameters than our relationships with Chile and Argentina. Nordic partners familiar with China's civil-military "scientific" programs' territorial acquisition efforts frequently express concerns about PRC intentions. The U.S. can help assuage such concerns by increasing intelligence sharing, training, and cooperative efforts to more closely partner and cost share in polar operations and interoperability efforts. Australia and New Zealand have recently been subjected to unwelcome PRC visits or unexpected naval "scientific expeditions." Such visits challenge China's portrayal of its role in the polar regions. A third pillar for the AUKUS treaty could include Antarctic monitoring and joint operations designed to encompass contesting potential Chinese efforts to establish and permanently maintain a presence in the Antarctic land and water domains.

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Potential exists for New Zealand, Chile, and Argentina to join an AUKUS-like agreement to build greater maritime domain awareness in the Antarctic. Such security cooperation efforts can greatly enhance multilateral capabilities to track and surveil all vessels in the region to include Chinese. Diplomatic efforts through an AUKUS+ arrangement combined with security cooperation activities with member partners can monitor Antarctic activities and ensure compliance with international rules and norms. The international community must deter any destabilizing expansion in Antarctica to include potential malign PRC activities. Chinese military doctrine recommends using polar science missions as a cover for military efforts. Partners through an enhanced AUKUS+ arrangement could better deter, identify and challenge any

treaty violations and the growth of ground stations. It may be more diplomatically feasible to create a new agreement between Argentina and the U.S., Australia, and New Zealand. However, Argentina's history with the UK may make any diplomatic efforts a dead end due to Atlantic Ocean equities (Malvinas/Falklands).

In addition to the aforementioned diplomatic and military initiatives, the U.S. must enhance partnership and security cooperation efforts with Chile and Argentina to assist counter Chinese IUU fishing efforts. Chile and Argentina control the southern door to the Antarctic but are also recipients of Belt and Road Initiatives. These relationships will further complicate and require the U.S. and like-minded partners to provide new economic, military, and diplomatic options. In recent years, China has pursued permission for a naval base in Ushuaia, Tierra del Fuego province, which would better open the Antarctic to China. Such access would complement China's space station already present at Neuquén, Argentina.⁵⁹ Given China's efforts to establish a southern polar presence, Ushuaia in Tierra del Fuego would unite satellite communications and surveillance with a naval response capability with more proximate access to the Atlantic, Pacific, and Indian Oceans. U.S. Southern Command planners, synchronized with U.S. State Department's Bureau of Western Hemisphere Affairs, must align efforts to provide viable security and economic alternatives to PRC encroachment and IUU fishing activities. Creating shared interest in curbing Chinese IUU fishing could provide Argentina's naval posture and economy more palatable options to those offered by proposed PRC military base access and BRI enticements.

The fifth recommendation concerns the integrated naval base being constructed at Ushuaia in Argentina. The distance from Ushuaia to the Antarctic is only 620 miles. The Argentinian plan to construct a base that integrates naval facilities and a large Antarctic

logistics hub is attractive to China and the U.S. Could the U.S. and China share the base? That appears to be possible under the current Argentinian administration. A similar arrangement exists in Djibouti and much like the base at Ushuaia, the African base provides regional support capability as well as monitoring capability for the nearby strategic strait. A U.S. presence at Ushuaia will be one way to closely monitor and assess China's efforts in Antarctica, but as with any relationship with Argentina, the U.S.-UK relationship will cause some domestic observers to make concessions barring any UK access to U.S. facilities if basing permission is granted.⁶⁰ The Department of State must take lead in this endeavor, but the Department of Defense could support the effort through military diplomacy and increased security cooperation with Argentine security forces.

Conclusion

For decades, the PRC communicated its polar intentions in government speeches, news releases, and military documents. Coupled with the formulation of a significant icebreaker fleet, other PRC multiple-use maritime and polar capabilities increasingly raise global security concerns regarding Chinese intentions. Given PRC actions in recent years in other maritime and disputed environments, the PRC proved its willingness to probe and test the viability of international norms, national boundaries and the national resolve of those nations who have long adhered to the rules-based international order. China's broad partnership and cooperation with Russia in the Antarctic has forged new opportunities for commercial and military ventures, particularly protein sources and hydrocarbons. The world will closely watch how the PRC manages its Antarctic relationships with existing Antarctic powers as China pursues new security and commercial interests in Antarctica. China's efforts to leverage "scientific" investment to simultaneously gain valuable

dual-use data for both military and scientific purposes demonstrate China's capability and willingness to engage in "grey zone" warfare. If questionable PRC actions in the South China Sea and elsewhere are indicative of Chinese intent in the polar regions, the U.S. must strengthen interagency and multilateral cooperation to reinforce the rules-based order that oversees the Antarctic region.

For decades, the PRC communicated its polar intentions in government speeches, news releases, and military documents.

China's drive for mineral and hydrocarbon dominance poses economic and security risks for countries with territorial rights to Antarctica but who lack the ability to exploit such resources. The possibility of a renegotiated Antarctic Treaty that could open Chinese access to areas that China occupies and has extensively surveyed poses a security nightmare for the U.S., its South American partners, Australia and New Zealand. Despite contemporary arguments in various political arenas, Antarctica's rising strategic importance in the southern hemisphere is due not only to metals and minerals, but for new shipping lanes and protein sources as the world's oceans feel the impact of illegal and unregulated fishing. In recent years, the U.S. has responded to potential Chinese strategic initiatives by slowly expanding and reinvigorating military and diplomatic efforts. China's employment of diplomatic, commercial, and military pressure will escalate as economic and security demands for reliable food, energy, and mineral sources continue to grow.

Contesting China's efforts in the Antarctic will require a significant change in current United States and allied approaches to the region. SOUTHCOM operates in a resource constrained

region where some of our closest allies lack the ability to challenge China's naval numbers or capabilities. However, efforts to compete with China must consider not only diplomatic measures to prevent China from shaping the ATS to its desired outcomes, but also to ensure that China is prevented from retroactively claiming precedence and territorial ownership over areas where it has mapped the seabed, built scientific stations, and constructed airfields. China has acted in its own interests as many other nations do, but China has done so through with a mix of hybrid warfare tactics and economic inducements backed by high pressure demands for access and support from Antarctic states.

The U.S. must lead development of a comprehensive multilateral effort to reinforce existing agreements designed to minimize conflict in the polar regions and assist polar region states to resist Chinese encroachment. Failure to act in a whole-of-government multinational approach synchronized with our allies and partners risks the PRC achieving commercial and security goals which may conflict, or worse, harm the collective interests of the U.S. and its allies and partners. The U.S. risks creating opportunities for PRC and Russia efforts harmful to U.S. interests through U.S. indecision coupled with indistinct priorities and fractured alliances and partnerships. China has made claims regarding expanding commerce and scientific studies opportunities in Antarctica. However, to take China's word at face value would be to ignore the other signs that China is continuing with a policy of China First despite claims to the contrary. Ignoring China's efforts to position itself at the poles and in areas where it can exploit advantageous security postures could be another step toward achieving its geopolitical goals without firing a shot or reaching a consensus with the international community. **IAJ**

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