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One century of US policy toward Antarctica

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Research Article

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Abstract

One century ago, US Secretary of State Charles Evan Hughes made the first official statement regarding US policy toward Antarctica by declaring it would not recognise sovereignty in areas that could not actually be settled. The Hughes Doctrine formalised US opposition to countries dividing Antarctica into sovereign territory, a doctrine that has become the bedrock upon which subsequent US decisions toward the region were built. This paper gives a broad overview of the development of US policy toward Antarctica, starting with the Hughes Doctrine, including the period when the United States secretly considered making its own claim to sovereign territory before deciding to champion then maintain the multilateral, sovereign-free region based on the Antarctic Treaty in order to achieve its national goals. This paper also reviews how the policies are working today and considers the significant challenges and costs the United States would incur if it altered its century-old policy toward Antarctica.

One century of US policy toward Antarctica

It is rare for any policy to remain unchanged for one century, particularly for a country like the United States, which prides itself on embracing and driving change. However, the United States has maintained the policy, first announced by US Secretary of State Charles Evan Hughes in 1924, that the United States would not recognise sovereignty claims in the polar regions since there is no way to actively settle the land. This policy, now more than one century old, has been the foundation on which subsequent US policy decisions toward Antarctica have been made. Such a milestone deserves recognition, particularly since the policy laid the groundwork for the remarkable Antarctic Treaty, which has been the cornerstone for achieving US national security goals in Antarctica Antarctic Treaty, 1959 . Specifically, Article IV of the Antarctic Treaty holds in abeyance various positions on sovereignty in the Antarctic region.

In addition to marking this anniversary, it is worthwhile to periodically review policy positions in light of today's reality; after all, many things have changed since 1924. In this paper, I will first give a brief overview of the US policy toward Antarctica from 1924, when a policy was first announced, until 1961, when the Antarctic Treaty went into force for the United States and 11 other countries. Those early days include a 20-year period when the United States secretly considered declaring US sovereignty in some undefined portion of the region before ultimately deciding that its national interests lay in keeping the region for peace and science rather than as additional territory. The second section describes the period from the entry into force of the Antarctic Treaty in 1961 to the release of the updated US national policy on Antarctica in May 2024, a 60-year period. During this time, successive presidents concluded that US national interests continued to be best served through the multilateral arrangement established by the Treaty, which reserves the region for peace, science, and environmental protection. The third section focuses on how Antarctica might look to a US policymaker today if they reviewed the current US policy based on the Hughes Doctrine and subsequent presidential decisions, including the 2024 update. The final section asks what would happen if the US made a dramatic change to its Antarctic policy and hazards a few thoughts about potential considerations in two scenarios.

Although the Hughes Doctrine covered both polar regions, it quickly became less relevant for the Arctic since political governance in the north occurred in a much different manner than that in the south. Specifically, territorial claims in the Arctic were generally uncontested by countries since they were based on discovery (generally contiguous to the nation-claiming discovery) and effective occupation (albeit based on the long history of the indigenous people that nation-states assimilated). Notably, there are no significant outstanding territorial sovereignty disputes in the Arctic while countries agree that competing maritime, continental shelf, and other differences are largely governed by the U.N. Convention on the Law of the Sea (Østhagen, 2023). This is not to say that Indigenous Peoples living in the Arctic were then willing participants in being absorbed into nation-states or are pleased with their current political status in the Arctic; the Arctic Indigenous Peoples have reaffirmed that they are citizens of Arctic states but also state that it is their right "to freely determine our political status, freely pursue our economic, social, cultural and linguistic development, and freely dispose of our natural wealth and resources" (Inuit Circumpolar Statement, 2009). This is in stark contrast to the south, where there is no

Indigenous population to object to the current arrangements and where territorial sovereignty remains deliberately unresolved but stable. Since the Hughes Doctrine remains relevant today in Antarctica, this paper will therefore focus only on its application in the southern polar region.

Overview of US policy toward Antarctica, 1924–1961

The United States has a long history in Antarctica, starting with seal-hunter Nathaniel B. Palmer in 1820. The United States claims that Palmer was the first human to find Antarctica and that the 1838–1842 expedition led by Navy Lieutenant Charles Wilkes was the first expedition to prove that Antarctica is a continent (Joyner, 1997). The Wilkes Expedition, which had been formally authorised by the US Congress in 1836 as a "surveying and exploring expedition to the Pacific and South Sea," was particularly noteworthy in that among its participants were several American scientists and illustrators whose purpose was to increase knowledge of the explored regions (Philbrick, n.d.). Numerous whalers and sealers from the United States and other countries actively exploited and ultimately decimated the natural resources of the ocean surrounding the continent throughout the 19th and early part of the 20th century (Pearson et al., 2020; Zarankin et al., 2022). However, despite these commercial activities and the official expedition, the US Government made no particular statements about how to govern the region, nor did it demonstrate an interest in Antarctica for the first century of knowing about its existence, likely due to issues much closer to home, including its own Civil War and Manifest Destiny. The United States initially maintained its silence when the United Kingdom (1908 and 1917), New Zealand (1923), and France (1924) each made specific territorial claims in the Antarctic (Headland, 2022).

However, among its many other global impacts, World War I changed how the United States viewed its place in the world, including its position toward Antarctica. Increased interest by European countries in Antarctica provided additional motivation. In 1924, this change in mindset resulted in the US Department of State establishing the policy that, in its view, denied countries, including itself, the possibility of claiming sovereignty over previously unclaimed land in the polar regions.

The first formal substantive policy statement about Antarctica made by a senior US government official was in 1924 in response to a Norwegian claim in the Arctic. In February 1924, Norwegian Envoy Extraordinary and Minister Plenipotentiary of Norway in the United States, Helmer Bryn, informed US Secretary of State Charles Evan Hughes that a US newspaper article incorrectly reported that the United States could claim any lands that had not previously been discovered as part of Norwegian Roald Amundsen's upcoming Arctic exploration. Minister Bryn clarified "that possession of all the land that Mr. Amundsen may discover will, of course, be taken in the name of His Majesty the King of Norway" (FRUS, 1924). It is not surprising but worth remembering that erroneous media accounts drove official questions and actions even one century ago, just as they do today.

In his April 1924 response to the Norwegian note—shortly after France approved its first Decree claiming sovereignty over Adélie Land in Antarctica (Szaláncki, 2014)—Secretary Hughes said that territorial claims "in earlier centuries were based upon the acts of a discoverer, followed by occupation or settlement consummated at long and uncertain periods thereafter" and noted that it would not be possible to meet that criteria due to the harsh polar climate. Hughes concluded, "This Government cannot admit that such taking of possession as a discoverer by Mr. Amundsen of areas explored by him could establish the basis of rights of sovereignty in the Polar regions" (FRUS, 1924). Both the US and Norwegian governments understood that this statement covered both polar regions since both the Arctic and Antarctic were increasingly being explored by citizens of those two nations.

Separately, US citizen Anson Prescott asked the State Department in February 1924 whether the United States claimed sovereignty in the area explored by the Wilkes Expedition in 1840 (Henderson, 1964). The response from Secretary Hughes in May 1924 reviewed the Antarctic territorial claims to date and concluded with a much more readable statement of US policy, "It is the opinion of this Department that the discovery of lands unknown to civilisation, even when coupled with a formal taking of possession, does not support a valid claim of sovereignty unless the discovery is followed by an actual settlement of the discovered countries" (Henderson, 1964).

This was not a policy made and kept secret then ignored. As mentioned previously, the United States informed other countries and the public about this policy, and US commentators discussed the policy in prestigious journals (Miller, 1927). The United States has never renounced this 1924 policy, including when other allied countries made or reiterated claims of sovereignty and when the United States itself started considering internally whether it should make its own claim.

For example, in January 1939, responding to a 1938 French decree concerning France's sovereignty claim over Adelie Land, the US Ambassador in Paris delivered a note that said, "I am instructed to inform Your Excellency that in light of established principles of international law the United States Government cannot admit sovereignty accrues from mere discovery" (DIL, 1940). And in August 1939, Acting Secretary of State Welles instructed US diplomats in the Western Hemisphere to inform countries, "The Government of the United States has in the past asserted no claim of its own to sovereignty over areas in the Antarctic regions, although the activities and explorations of its citizens date back considerably more than a century. On the other hand, the United States Government has not recognised the Antarctic sovereignty claims of any other nation and has made a formal reservation of such rights as it or its citizens may possess in that region" (FRUS, 1939).

The United States government also applied to itself the same standard it applied to others, which is a level of consistency that governments do not always achieve. Prior to Commander Richard E. Byrd's successful 1929 flight to the South Pole, the US Consul General in Wellington was instructed to inform New Zealand that "his expedition is not under the auspices of this Government [and] is solely one of a scientific nature" (FRUS, 1928). The State Department likewise did not give private or confidential authority to Byrd to claim territory for the United States or otherwise take action to advance a potential claim. After Byrd's 1929 flight, President Herbert Hoover (1929–1933) publicly congratulated Byrd for his efforts, but the President did not stake any Antarctic territorial claim for the United States based on Byrd's efforts (Hoover, 1930). Although Byrd did not land at the South Pole, Byrd's expedition was the first to make it to the Pole since Robert F. Scott's disastrous visit, when he famously called it "an awful place" (Scott, 1913). In addition to demonstrating the viability of that new technology of flying in Antarctica, Byrd explored a much greater area than previous explorers, which could have been used to give the United States a significant territorial claim if one based a claim merely on being the first to see territory (Dater, 1969). Byrd also

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created significant public awareness of his activities through numerous print and radio engagements, which could have established popular support in the United States for making a claim (Matuozzi, 2002). However, government action did not follow, and popular opinion did not continue to be stoked to bolster a territorial claim by the United States in Antarctica.

The policy to not claim territory was carried on by the next US Administration, when President Franklin Roosevelt (1933–1945) followed Hoover's model in his own private correspondence to Byrd in 1933 and in public remarks in 1935 regarding Byrd's most recent Antarctic expedition. In 1933, FDR in a letter to Byrd in advance of Byrd's private expedition focused on the upcoming scientific discoveries and provided no instructions related to sovereignty; however, to further one of his favorite hobbies, he did ask for a letter from "Little America" to add to his stamp collection (Roosevelt, 1933). When celebrating in public Byrd's return in 1935, Roosevelt did not mention any sovereignty or territorial claims but instead focused on Byrd's scientific discoveries (Roosevelt, 1935).

Similarly, in January 1934, the British Ambassador delivered a note to US Secretary of State Cordell Hull regarding expeditions by Byrd and another accomplished American polar explorer, Lincoln Ellsworth, in the region claimed by the United Kingdom and New Zealand. Specifically, the U.K. Ambassador noted, "A United States post office [and] the use of United States postage stamps there without permission from the sovereign power ... could not be regarded as anything other than as infringing British sovereignty and New Zealand administrative rights." Additionally, the Ambassador noted that "no [wireless radio] license ... was applied for" and that "the competent authorities received no application for permission for such flights." The brief February 1934 response from the State Department ignored the complaints, thanked New Zealand for the assistance it had provided to the expeditions, and "reserve[d] all rights which the United States or its citizens may have with respect to this matter." An additional response from the State Department in November 1934 went further by including, "In the light of long established principles of international law ... I can not admit that sovereignty accrues from mere discovery unaccompanied by occupancy and use" (DIL, 1940).

That 1934 exchange with the UK about the concerns of the UK and New Zealand was significant because it marked the first time the United States explicitly reserved its rights in Antarctica, in addition to denying the possibility of establishing sovereignty in the region without permanent settlements. From then on, the US reservation of rights was routinely included in official correspondence related to Antarctica. For example, in January 1939, the US Ambassadors in London and Paris were instructed to inform the UK, France, Australia, and New Zealand that "the United States reserves all rights which it or its citizens may have with respect to the question of aerial navigation in the Antarctic as well as to those questions of territorial sovereignty implicit therein" (FRUS 1939). This was in response to an agreement among those four countries regarding air navigation in the Antarctic. Also in January 1939, in response to a Norwegian decree that specified Norway's Antarctic sovereignty claim, the State Department said, "I wish to inform you that the United States reserves all rights which it or its citizens may have in the area mentioned" (FRUS, 1939).

The United States did not specify what rights it was reserving for itself or its citizens. However, from 1936 to 1958, the United States took steps to advance its own potential sovereignty claim in the region as a possible right that it was reserving. Rarely, it publicly imply what rights it was reserving in Antarctica. For example, the US Congress approved and President Roosevelt granted Ellsworth a Congressional Gold Medal in 1936 "for claiming on behalf of the United States approximately three hundred and fifty thousand square miles of land in Antarctica between the eightieth and one hundred and twentieth meridians west of Greenwich, representing the last unclaimed territory in the world" (Ellsworth 1938). However, the US government took no steps to make the words of the medal's citation come true, apparently content to let private citizens take action that the government could then avow or disavow at some point in the future. Consistent with that approach, Secretary of State Hull in 1938 felt comfortable advising Ellsworth, who was about to embark on another Antarctic expedition, "that it seems appropriate for him to assert claims in the name of the United States *as an American citizen* (emphasis added), to all territory he may explore, photograph, or map which has hitherto been undiscovered and unexplored, regardless of whether or not it lies within a sector or sphere of influence already claimed by any other country" (FRUS, 1938). However, Hull refused to provide that guidance in writing and clarified that "while the United States has not as yet asserted any formal claim to territory in the Antarctic regions, it has in various exchanges of diplomatic correspondence always reserved such rights as it may have acquired by reason of the activities of American citizens in those regions" (FRUS, 1938).

A January 1939 State Department report for President Roosevelt listed five reasons the United States should give serious consideration to the assertion of claims in both polar regions: "the development of transarctic aviation; reports of valuable mineral and fuel resources in the Antarctic; the strategic interest of our War and Navy Departments; the measures being taken by the Soviet, British, Canadian, Australian, New Zealand, French, and Norwegian Governments to establish their polar claims more firmly; and the interest expressed a short time before by the German and Japanese Embassies in Washington in newspaper reports of possible American claims in the Antarctic" (Hull & Berding, 1948).

It is worth noting that many of the issues identified in 1939 are similar to those relevant today: emerging dual-use technology (airplanes then, satellites now); the potential for resources (which both then and now are largely undetermined, other than it would be remarkably difficult, expensive, and destructive to extract, but nonetheless were mentioned as potentially relevant); possible strategic military interests (which, as World War II subsequently demonstrated, were insignificant compared to other parts of the world); and the actions of other countries (although the United States back then recognised competition posed by both allied and friendly nations such as Argentina and the United Kingdom in addition to the then-strategic competitors of Germany and Japan).

The US Government did undertake its own efforts to potentially advance unspecified territorial claims, such as establishing the US Antarctic Service under the command of Richard E. Byrd, US Navy, Ret. (FRUS, 1939), and sending the largest-ever expedition led by the US Navy, called Operation Highjump, to train personnel and test equipment in cold climates and to consolidate and extend sovereignty in Antarctica (U.S. Department of the Navy, 1947). However, even while taking actions that could have led to a territorial claim, it emphasised in internal documents that "although Americans, acting privately or under official auspices, have laid claim to large portions of the Antarctic Continent ... the US Government has never officially asserted a claim to territory in Antarctica" (FRUS, 1947). So, for two decades, the United States quietly authorised acts that could advance a potential future US territorial claim in Antarctica but did not publicly or internally disavow the 1924 policy.

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This dalliance with a potential US sovereignty claim ended after two decades when in 1958 President Dwight Eisenhower (1953–1961) decided that US objectives in Antarctica would be better achieved via the absence of explicit sovereignty in the region rather than dividing the continent up in the same manner as the rest of the world. Eisenhower led a series of high-level meetings throughout his Administration that resulted in specific National Security Council (NSC) instructions in 1954 (NSC 54241/1; see FRUS, 1952–1954) and 1957 (NSC 5715/1; see FRUS, 1955–1957). After these sustained reviews of US interests in Antarctica by senior US government officials, he determined in 1958 via NSC 5804/1 that the US interests in the region were not territorial aggrandisement but to

> prevent the use of Antarctica for military purposes; provide for freedom of scientific investigation throughout Antarctica by citizens, organizations and governments of all countries; guarantee freedom of access to Antarctica by citizens and organizations of all countries, under established uniform rules; establish uniform and non-preferential rules applicable to all countries and their nationals for any possible development of economic resources in the future; provide for an orderly joint administration of Antarctica by the countries directly concerned, on a non-preferential basis for all countries, and for peaceful purposes only; and provide such relationship or association with the United Nations as would advance the preceding objectives. (FRUS, 1958–1960)

This 1958 decision, which reaffirmed Hughes's policy, took into account the "recent technological advances and increased Soviet activity" (FRUS, 1958–1960), likely referring to the successful launch by the U.S.S.R. of Sputnik a few months earlier.

Eisenhower, despite concerns from the Joint Chiefs of Staff, supported the State Department's proposal to invite the Soviet Union to the negotiations for what became the Antarctic Treaty, recognising that inclusion was the only way to secure agreement on managing their established presence in the region; "inviting the Russians to the conference [to negotiate a treaty] would not bring them to the Antarctic, since they are already there. Failure to invite them would not cause them to leave." (FRUS, 1958–1960; Dobransky, 2014). Eisenhower was also concerned about India's proposal that the United Nations become more involved (FRUS, 1958–196) and about the growing threat of conflict among Argentina, Chile, and the UK given their overlapping claims in the Antarctic Peninsula (Dodds, 2002). As a result of these decisions, the top US goals for Antarctica could be summarised as peace, science, non-preferential openness to all, and administration by those most active in the region. These goals were to be achieved through international cooperation that acknowledged differences between allies and the Soviet Union, and was based on the successful example of the International Geophysical Year (IGY) of 1957–1958 (Belanger, 2010).

This 1958 policy decision caused the United States to call for a negotiating conference that led to the Antarctic Treaty (Berkman, 2011). It was not a foregone conclusion that such a call would be successful. Eisenhower's predecessor, President Harry Truman (1945–1953), had instructed US officials in 1948 to pursue a multilateral arrangement for Antarctica; however, "all the claimants but the UK and New Zealand rejected [the proposal] immediately and with varying degrees of fervor" (FRUS, 1949; Moore, 1999). The response was different in 1958 when the seven claimants (Argentina, Australia, Chile, France, New Zealand, Norway, and the UK) plus four other countries scientifically active in Antarctica during the IGY (Belgium, Japan, South Africa, and U.S.S.R.) accepted the invitation to negotiate the future arrangements for managing the Antarctic region.

In addition to the many global changes that took place during the intervening decade, there were two significant Antarctic-specific differences that led to a positive response in 1958. One was that the 18-month IGY in 1957–1958 demonstrated that cooperation could take place between competing superpowers and countries with overlapping or unrecognised territorial claims. Having proof of success allowed policymakers to seek to make permanent the IGY spirit by negotiating what became the Antarctic Treaty (Dodds, 2023a). The other key difference between 1948 and 1958 was that the United States embraced the concept first voiced by Chilean Julio Escudero, which encouraged the seven countries asserting specific territorial rights to retain their respective sovereignty claims but refrain from enforcing them (Sampaio, 2017). Under this arrangement, the United States could continue to object to all territorial claims as well as reserve its rights of "a basis of claim," as could the Soviet Union. This satisfied all other countries, since they could continue to oppose or refuse to recognise territorial claims of other nations, safe in the knowledge that those territorial claims could not be acted upon while the Treaty remained in force (Scully, 2011). This became Article IV of the Treaty, which was signed in Washington D.C. on December 1, 1959, and went into force in 1961. This provision that codifies the agreement to disagree over sovereignty remains in force today with no expiration date and no obligation to review or renew. Over the next 16 months, representatives of the 12 countries held 60 confidential meetings to narrow issues (Hanessian, 1960). The actual negotiations, called the Antarctic Treaty Conference, took place in Washington, DC, from October 15, 1959, to December 1, 1959, when the Treaty was signed (Hanessian, 1960).

Once the Treaty was signed, Eisenhower acted expeditiously to obtain the advice and consent of the US Senate. Less than one year later, the US Senate debated then approved the Treaty by a vote of 66 to 21 after a "prickly debate" (Time Magazine, 1960). Those who opposed the Treaty doubted the Soviets could be trusted in the agreement and were frustrated that the United States had not claimed sovereignty over at least some portion of the region, irregardless of the significant downsides to making such a claim (USGPO, 1960).

Eisenhower's fourth and final Antarctic policy decision, NSC 5905/1, was issued in 1959 during ongoing negotiations for the treaty. This policy reaffirmed the 1958 decision, including the national security reasons not to pursue a unilateral territorial claim. It also reiterated that excluding Antarctica from the United Nations was in Antarctica's interest, since Antarctica's inclusion could lead to "political maneuvering" (FRUS, 1958–1960) that could result in decisions influenced by broader geopolitical agendas rather than the unique needs and interests of Antarctica itself. The memo identified the need to "to re-examine the adequacy of organisational arrangement" of the US Government since "the Defense Department finds itself heavily committed in terms of available men, money, and resources to programs which are not primarily of Defense Department interest" (FRUS, 1958–1960). The Eisenhower Administration resolved this topic in 1960 when it decided, via Bureau of Budget Circular A-51, that "the National Science Foundation shall continue to exercise the principal coordinating and management role in the development and carrying out of an integrated US scientific program for Antarctica" (White House, 1960). The Circular further stated that "the Department of Defense shall continue its role ... in support of the scientific or other programs in Antarctica," although the commander of the military support forces "shall continue to be the senior United States representative" (White House, 1960). This

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decision, to keep civilian scientific control over US activities in the region, was consistent with the Treaty and the 1958 policy decision but hardly an obvious conclusion in the height of the Cold War.

Overview of US policy toward Antarctica, 1961–2024

Eisenhower's successors, regardless of political party, continued his policy to reserve Antarctica for peace and science via the novel multilateral arrangement established by the Treaty, which built on Hughes's criteria for sovereignty. Successive administrations issued national strategy papers about the region, showing that the longevity of Hughes and Eisenhower's policies toward Antarctica is not because of inertia or ignorance but from successive US presidents deciding that the US policy of denying sovereignty to itself and others and reserve the region for peace and science continued to meet current needs with only minor alterations or clarifications.

President John F. Kennedy (1961–1963) publicly welcomed the "entry into force"—a specific legal and diplomatic term describing when a treaty becomes legally binding to its members—of the Antarctic Treaty (Kennedy, 1961) and otherwise advanced his predecessor's vision. President Lyndon B. Johnson (1963–1969) reported to Congress the results of the first unannounced US inspection of stations operated by other countries in Antarctica (Johnson, 1964). Like his predecessor, Johnson did not undertake any significant changes in US policy to Antarctica. However, he did take steps to better manage what was now going to be a long-term effort in the remote region. Johnson established the Antarctic Policy Group (APG) (Johnson, 1965), which would, until the end of the century and under various names, serve as the bureaucratic forum to develop and implement US policy toward Antarctica. According to Johnson, the APG, comprising officials from the State Department, the National Science Foundation (NSF), and other agencies, was charged "with guiding our Antarctic policy and helping develop the US program in that region" (Johnson, 1965).

President Richard M. Nixon (1969–1974) made a more significant mark on the US policy toward Antarctica by adding in his own 1970 National Security Decision Memorandum, NSDM-71, that the US should be "active and influential" to achieve the goals of "peace and science" (White House, 1970). Importantly, at the request of the Defense Department, the Memorandum transferred "budget for the entire United States program in Antarctica, including the funding of logistical support activities" to the NSF (White House, 1970). With this decision, the NSF became the sole funnel for US funding to activities in Antarctica, with the caveat that the funding was to achieve US scientific, economic, and political goals. On August 4, 1971, the Office of Management and Budget (the successor to the Bureau of the Budget) issued Revised Circular A-51 that stated the "Antarctic Policy Group (APG) shall serve as the policy guidance body for the totality of US activities under the Antarctic Treaty"; that NSF could designate the "Senior United States Representative in Antarctica"; and that the Defense Department "shall plan and carry out logistic support requested by the NSF … on a mutually acceptable reimbursement or non-reimbursement basis" (White House, 1971). The result was to further strengthen the role of diplomacy and civilian scientists in Antarctica while granting the Defense Department's preference to support, not act independently, in the region.

Responding to the concern raised in the 1972 Antarctic Treaty Consultative Meeting that countries might start mining for oil in Antarctica, Nixon approved NSDM-263 on July 29, 1974, formalising the prioritised peace and science over energy needs (FRUS, 1969–1976). The memo "authorised preliminary consultations … to gain acceptance of the idea that there should be an internationally agreed approach to the issues of commercial exploration for and exploitation of Antarctic mineral resources." However, the first objective was

> to ensure that, if undertaken, commercial exploration and exploitation in Antarctica are carried out in a manner that does not disrupt the implementation of the Antarctic Treaty as long as it is in effect, and does not become a cause for significant international discord. (FRUS, 1969–1976)

The other two objectives were to prevent exploration and exploitation from disrupting the Antarctic Treaty's implementation and to protect the sensitive Antarctic environment from harm caused by mineral resource activities. NSDM-263 also stated that while engaging in ongoing negotiations, the United States would oppose any nation's effort to commercially explore and exploit Antarctic mineral resources. Finally, the Memo said, "The United States will continue to maintain and be prepared to augment as appropriate an active and influential presence in Antarctica in keeping with its present and future scientific, economic (including resource potential), political, and security interests in Antarctica," thereby further clarifying that commercial interests were one of several, and not even a leading goal, for US policy in Antarctica.

In response to tight budgets and related disagreements between NSF and the Defense Department, President Gerald Ford (1974–1977) reaffirmed the existing policy as updated by Nixon and noted in NSDM-318 "that United States national interests in Antarctica go well beyond the normal range of responsibilities of the National Science Foundation … [and] that it would be seriously disadvantageous to reduce the level of our presence and activities in Antarctica" (FRUS, 1969–1976). Ford likewise instructed the Pentagon and Department of Transportation, which was then the agency responsible for the US Coast Guard, "to maintain the capability to provide the logistic support requested by the NSF." It is worth noting that then as now, the US government had challenges maintaining the specialised logistical equipment required to operate in Antarctica's unique and extreme environment.

President Jimmy Carter (1977–1981) did not make any significant statements about Antarctica. President Ronald Reagan (1981–1989) further strengthened NSF's civilian management of US activities in Antarctica, stating in Presidential Memorandum 6646 that the US Antarctic Program

> shall be maintained at a level providing an active and influential presence in Antarctica to support the range of U.S. Antarctic interests. The presences shall include the conduct of scientific activities in major disciplines; year-round occupation of the South Pole and two coastal stations; and availability of related necessary logistics support. (White House, 1982)

Reagan also decided the NSF would continue managing and budgeting the entire United States national program in Antarctica, including logistical support, to ensure the program could be centrally and efficiently coordinated by a single entity. As part of this arrangement, the NSF would reimburse the departments of Defense and Transportation (for the US Coast Guard) for logistical support to the US Antarctic Program provided by those agencies. Reagan also directed the Antarctic Policy Group, led by the State Department, to recommend short-term scientific activities by US agencies and provide policy guidance, particularly for upcoming negotiations on an Antarctic mineral resources regime. These negotiations, regulating possible future mineral resource extraction, resulted in the Treaty Parties agreeing to the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) in 1988.

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However, that agreement was short-lived. France, followed by Australia, announced in 1989 that they would not ratify CRAMRA, effectively killing the agreement (Waller, 1989). President George H.W. Bush (1989–1993) made the most significant US decision about Antarctica since the original Treaty: in July 1991, he reluctantly agreed to support The Protocol on Environmental Protection to the Antarctic Treaty (Bush, 1991). The Environmental Protocol elevated and formalised environmental protection of the region, including prohibiting all activities relating to Antarctic mineral resources, except for scientific research, instead of establishing the CRAMRA regulations under which commercial mining could have taken place in Antarctica.

Although Bush's decision reconfirmed Nixon's approach of prioritising peace and science over commerce in the region, the United States was the last country to agree to the Environmental Protocol since it wanted a sunset clause on the mining ban (Neuman, 1991). However, the US Congress had recently passed bills—which President Bush had signed into law—stating that the US policy would be an "indefinite prohibition of commercial minerals development and related activities in Antarctica" (Neuman, 1991). Some US Senators pushed back on the Administration's efforts for a mining sunset clause, so ultimately the United States agreed to the Environmental Protocol's Article 25, which merely changes the rules on how to amend the mining ban after 50 years Protocol on Environmental Protection to the Antarctic Treaty, 1991 . Conflation of the original position with what is ultimately in the Environmental Protocol has led to the incorrect speculation that the mining ban, the Protocol, or the entire Treaty will be up for review or even expire in 2048, something Antarctic Treaty Parties and knowledgeable commentators have spent years trying to combat (Flamm & Hemmings, 2022 ; Rothwell & Hemmings, 2018).

Of all the US presidents, President William Clinton (1993–2001) made in 1994 and 1996 the most comprehensive public statements on Antarctica since Eisenhower. Taken together, Clinton reaffirmed Eisenhower's goal of "peace and science," Nixon's "active and influential" presence, and Reagan's budgetary requirements for three stations while maintaining Bush's environmental and resource protection. Two documents were necessary to advance Clinton's goal of obtaining Congressional approval for the signed—but not yet in force—Environmental Protocol and protecting the US Antarctic Program budget from Congressional cost-cutting efforts.

The 1994 Presidential Decision Directive (PDD)/NSC Directive 26 (PDD/NSC-26), includes both polar regions in the same document, although it addresses each region separately and states there are important differences between the two regions. The Directive defines four key objectives for US policy toward Antarctica:

> United States policy toward Antarctica has four fundamental objectives: (1) protecting the relatively unspoiled environment of Antarctica and its associated ecosystems, (2) preserving and pursuing unique opportunities for scientific research to understand Antarctica and global physical and environmental systems, (3) maintaining Antarctica as an area of international cooperation reserved exclusively for peaceful purposes, and (4) assuring the conservation and sustainable management of the living resources in the oceans surrounding Antarctica. (White House, 1994)

To achieve these goals, the United States further reaffirmed its support for the Antarctic Treaty of 1959 including its prioritisation of peace through international cooperation, science, and environmental protection; maintained an active presence in Antarctica; and designated the Department of State to lead policy coordination and implementation.

In 1996, the White House released a 67-page "Report on the US Antarctic Program," which closed with a conclusion worth repeating in full:

> The United States has important foreign policy and national security interests in Antarctica. These interests are given concrete expression through the Antarctic Treaty of 1959. The Treaty guarantees freedom of scientific research in Antarctica and prohibits military and nuclear activities there. Further, it includes imaginative juridical and decision-making provisions that defuse potentially explosive disputes over sovereignty in Antarctica among its Parties. The international peace and political stability in the area resulting from the operation of the Treaty are themselves important policy objectives of the United States. Moreover, the Treaty is the indispensable basis for successful pursuit by the United States of the unique opportunities Antarctica offers for scientific research, as well as associated goals of protecting the pristine environment of Antarctica and conserving its resources. The success of the Antarctic Treaty and the achievement of U.S. Antarctic interests are the direct result of the active and influential U.S. presence in Antarctica maintained by the United States Antarctic Program. This year-round presence protects the U.S. position on sovereignty in Antarctica and accords us a decisive role in the Treaty's activities-based decision system, both of which are essential to maintaining the political and legal balance that makes the Treaty work. *Thus, from a policy perspective the [National Science and Technology Council] finds that maintaining an active and influential presence in Antarctica, including year-round operation of South Pole Station, is essential to US interests.* [emphasis in the original] (White House, 1996)

These two documents, the 1994 Directive and the 1996 Report, emphasise that the "paramount" US national interest in the region is to keep Antarctica from becoming an area of international discord, with the Treaty and the active and influential US presence being the two main tools to achieve that goal (Joyner, 2011).

President George W. Bush (2001–2009) took action that affected US policy toward Antarctica during his first and last months in office, although in neither case was Antarctic policy the focus of his decision. The first action of the National Security Presidential Directive, NSPD-1, reorganised the entire National Security Council (NSC) system in February 2001. In the process, it abolished the Antarctic Policy Group (APG) established by Johnson in 1965 to manage US government policy toward Antarctica. This left the Department of State and the NSF to lead the US policy and the US Antarctic Program, respectively, without a formal interagency group or dedicated NSC oversight (White House, 2001). The APG was one of many groups that was abolished but not reconstituted as a result of this directive.

The second action, NSPD-66, decoupled the polar policies by issuing a separate Arctic strategy in January 2009. This reversed the Clinton decision to provide policy guidance for both poles in a single document, thereby returning to the pre-Clinton norm and reinforcing the difference in the policies between the two poles (White House, 2009). NSPD-66 stated,

> This directive supersedes Presidential Decision Directive/NSC-26 (PDD-26; issued 1994) with respect to Arctic policy but not Antarctic policy; PDD-26 remains in effect for Antarctic policy only . . . . The geopolitical circumstances of the Arctic region differ sufficiently from those of the Antarctic region.

Otherwise, NSPD-66 did not comment on previous Antarctic policy statements. The US policy toward the Arctic has since undergone further revisions.

President Barack Obama (2009–2017) did not make any significant statements about Antarctica. The only statement President Donald Trump (2017–2021) made on Antarctica was to instruct his Cabinet in 2020 to "develop and execute a polar

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security icebreaking fleet acquisition program that supports our national interests in the Arctic and Antarctic regions" (White House, 2020). The Department of Homeland Security, the current home agency for the US Coast Guard—the sole US agency with icebreakers—was tasked to lead the review "in support of national interests … in furtherance of the National Security Strategy and the National Defense Strategy … [and] in accordance with the Antarctic Treaty System" (White House, 2020).

President Joseph Biden (2021–2025) furthered Trump's icebreaker policy in July 2024 by announcing the establishment of the Icebreaker Collaboration Effort (ICE) Pact with Canada and Finland to collaborate on the production of polar icebreakers and other capabilities, with the particular goal to foster increased scientific research and international collaboration in Antarctica (White House, 2024c). Biden's most significant Antarctic policy achievement, however, was to issue, on May 17, 2024, an updated US policy toward Antarctica in National Security Memorandum 23 (NSM-23) (White House, 2024a). The policy fundamentally maintains previous policy decisions and consolidates them in a single document. Key aspects of the policy include

- maintaining Antarctic policy as separate and distinct from Arctic policy,
- strongly supporting the Antarctic Treaty system,
- highlighting peaceful cooperation while reinforcing the importance of monitoring compliance,
- maintaining civilian and scientific control over operations in the region,
- clearly rejecting sovereignty claims by other countries,
- underscoring the vital importance of Antarctica related to global climate change, and
- committing to use a precautionary approach to fisheries management (White House, 2024a).

When releasing the policy, the White House committed to working with Congress to adopt binding commitments made at various Antarctic Treaty meetings as well as to obtain sufficient funding for science and logistical needs, including ice breakers (White House, 2024b).

Overview of US policy toward Antarctica, today

The updated May 2024 policy released by the White House implicitly recognised the long, bipartisan history of success. The enduring policy has successfully navigated the highs and lows of the Cold War as well as weathered the post–Cold War period to keep the coldest, driest, and windiest continent on Earth from contributing to geopolitical tension. Notably, the US Government expressed neither dissatisfaction with the governance of Antarctica nor discontent regarding its own underlying policies, among which is its longstanding opposition to sovereign claims based on the Hughes Doctrine. However, this May 2024 Memo, NSM-23, would be the starting point if US officials were to review whether Antarctic governance and its own policies were still in the US national interest. The key summary sentence in NSM-23 is, "The United States will continue to lead cooperative international efforts through the Antarctic Treaty System to maintain the Antarctic Region for peaceful purposes, protect its relatively pristine environment and ecosystems, and conduct scientific research" (White House, 2024a). These four points provide guidance to current and future officials about US priorities in the region.

First point

The first NSM-23 point is to lead cooperative international efforts for the region through the Antarctic Treaty System (ATS). This system is the collection of agreements and commitments to manage Antarctica that are based on the Antarctic Treaty and include the Environmental Protocol and the Convention for the Conservation of Antarctic Marine Living Resources (CAMLR Convention). The breakdown of international cooperation in the Antarctica region or in the ATS diplomatic fora would be one reason to intensely review US policy. Currently, there is no indication of any breakdown of cooperation in Antarctica, meaning that activity south of 60°S latitude, which is the Antarctic region, continues to be collaborative and certainly not hostile. As has been the norm since the International Geophysical Year (IGY) of 1957–1958, national programs continue to assist other programs during medical emergencies regardless of broader geopolitical stress (Treisman, 2020). There have been no events similar to the 1952 Hope Bay incident, where Argentine soldiers shot above the heads of a British team unloading supplies, or the 1953 Deception Island incident, which resulted in the UK dismantling Argentine and Chilean operations on that island (Howkins, 2008).

Additionally, consistent with Article IV of the Antarctic Treaty, there have been no new territorial claims, and none of the existing claimants have violated the Treaty by restricting activities in the territory they have claimed. As has been the case since the IGY, stations operated by countries with different geopolitics outside of the Antarctic region continue to coexist without challenges, most notably in the Antarctic Peninsula Region, where virtually all countries active in Antarctica have a station (Council of Managers of National Antarctic Programs [COMNAP], 2017). Because sovereignty has not been imposed, an entire continent—the size of the United States and Mexico combined—and the Southern Ocean surrounding it remains open and peaceful, as it has been for the past seven decades.

There is more stress to international cooperation in the two ATS negotiating fora—the Antarctic Treaty Consultative Meetings (ATCM), which includes the results of the meeting of the Committee for Environmental Protection, and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR)—that manage Antarctica. However, no country has advocated abandoning or changing the negotiating fora or altering key provisions like Article IV. The ATCM is the default venue for any Antarctic issue and has specific competencies over the topics addressed by the Treaty and its Environmental Protocol, which establishes comprehensive environmental protection and designates Antarctica as a natural reserve devoted to peace and science (Bastmeijer et al., 2023). CCAMLR, which was established in 1982 by the CAMLR Convention, has the objective to conserve, including rational use of, Antarctic marine life (CCAMLR, 1980).

Russia has brazenly reduced the functionality of CCAMLR by abusing the consensus decision-making process in that fora. In 2020, Russia refused to accept the consensus to sanction the Russian fishing vessel, *FV Palmer*, for illegal, unreported, and unregulated (IUU) fishing and counterattacked by accusing New Zealand of falsifying the evidence that incriminated the vessel (Goldsworthy, 2022). Additionally, in 2021 (CCAMLR, 2021) and during subsequent years, Russia rejected scientific advice and vetoed establishing fishing limits in CCAMLR subarea 48.3, which covers waters that Argentina and the UK fought over in 1982 (Arpi & McGee, 2022). The following year, Russia clarified that "no

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science could be presented that would change its position," which made clear its motives were to exacerbate the well-known dispute between Argentina and the UK over sovereignty in the Southern Atlantic (outside of the Antarctic Treaty limits but covered by CCAMLR) rather than protect fish stocks based on scientific findings (CCAMLR, 2022). Although Russia has demonstrated that it will take steps unilaterally or with Chinese support to advance its narrow interests in the region, it has not given any indication that they plan to abandon or modify CAMLR Convention, perhaps hoping that another country will become frustrated enough with Russia's blocking actions to propose an alternative venue. It also has not taken similar steps in the ATCM.

Second point

The second NSM-23 policy point is to keep the region for peaceful purposes. Article I of the Antarctic Treaty says,

> Antarctica shall be used for peaceful purposes only. There shall be prohibited, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons.

The ATS significantly reduced the usual motives for state-violence through Treaty Article IV, which advanced the Hughes Doctrine by eliminating sovereignty as an active issue. However, words on a paper are insufficient to ensure compliance or ensure peace, so the Treaty's Article VII establishes a two-tiered monitoring program, including the right to conduct unannounced in-person inspections. This right allows countries to verify whether other countries are complying with Article I and other requirements (Muntean, 2024b). Countries have conducted over 60 unannounced inspections since the treaty came into force, with the United States having done 15 inspections, the most of any country. No surprise inspection has found a violation of Article I nor any other provision vital to national security; however, there remain many stations that have never been inspected, and equipment at stations is always changing. Some commentators are paying increasing attention to rapidly expanding Chinese logistical and operational capacity in Antarctica, and some have voiced the concern that global navigation satellite systems, such as GPS and BeiDou, other ground satellite station equipment, and telescopes are dual-use equipment that could violate the Treaty's provisions (Brady, 2017; Funaiole et al., 2023). Others are not as concerned about potential or actual dual-use equipment since the Antarctic stations are open to unannounced inspections; moreover, there are significant communications restrictions that limit the operational effectiveness of certain equipment, and China has successfully installed this equipment or better elsewhere in the world (Young, 2024). If potential dual-use equipment is an actual concern, then the most efficient way to answer questions related to the equipment is to prioritise conducting unannounced inspections of the stations that house this equipment. This inspection regime is significantly facilitated by the absence of sovereignty in the region; after all, there is no similar ability for countries to conduct unannounced inspections in the Arctic, where sovereignty is clear and acknowledged.

In addition to unannounced inspections and other Treaty-authorised tools to monitor capabilities and actions in Antarctica, key countries active in the region have published their Antarctic policies and goals in the past 10 years; no country has claimed other countries are militarising Antarctica, have announced their own plans to militarise the region, or have otherwise questioned Antarctic Treaty System provisions. Specifically, Argentina, Australia, Chile, France, New Zealand, Norway, and the UK have reiterated their sovereign territorial claims but acknowledge they are frozen by the Treaty. In addition to sovereignty, Australia and Norway prioritise developing economic opportunities related to Antarctica; France emphasises environmental protection; Argentina and Chile have increasingly promoted their respective overlapping claims in the Southern Ocean based on their unrecognised Antarctic territorial claims while also pursuing economic gains through the region; Russia has declared its goal is to maintain Antarctica as "demilitarised space of peace, stability and cooperation" (Russian Ministry of Foreign Affairs [MFA], 2023) as well as to conduct research on the "resource potential of the Antarctica subsurface and the surrounding seas" (Russia Presidential Decree (Kremlin), 2022); and China has prioritised "peace" and "utilisation" of Antarctica (ATCM, 2017; Muntean, 2024a).

Third point

The third NSM-23 point is to protect Antarctica's environment. There are two broad threats to Antarctica's environment: (a) actions that affect Antarctica but originate outside the region covered by the ATS and (b) actions that originate in the region that are or could be covered by ATS. Global climate change is the most significant threat to Antarctica's environment; however, similar to the threat global climate change poses to Small Island Developing States, the vast majority of the emissions causing the threat comes from the rest of the world and are imported into the region (Pörtner et al., 2019). The ATS is limited by region and membership, so negotiations related to global climate change occur within the United Nations Framework Convention on Climate Change (UNFCCC), which covers all countries and regions. The first recommendation by the Scientific Committee for Antarctic Research (SCAR) to ATS members is therefore to

> communicate to governments and to civil society the urgency of, at the very least, meeting the Nationally Determined Contributions (i.e. country greenhouse gas emissions reduction targets) of the [UNFCCC] Paris Climate Agreement to ensure that Antarctic and Southern Ocean environments are maintained in a state close to that known for the past 200 years. (Chown et al., 2022)

This recommendation is given because the "consequences of sea level rise and melting ice (sea, land and shelves) around Antarctica's coastline will present significant risks to society," with the rates and magnitude "not well known" (Chown et al., 2022). Due to global climate change, Antarctica is warming at a range of 0.22 °C and 0.32 °C per decade, which is almost twice the rate of the rest of the world (ATCM, 2024b). Other significant threats that originate outside of the region but can damage Antarctica's environment include plastics (Aves et al., 2022), invasive species (McCarthy et al., 2022; Dawson et al., 2024), and diseases like highly pathogenic avian influenza (WOAH, 2024). These are topics ripe for mitigation within the region but will likely require action outside of the region to reduce their Antarctic impact. Countries with clear sovereignty over their own territory have such sufficiently bad records of managing their own environment that granting territorial sovereignty in Antarctica is supremely unlikely to increase environmental protection in that region.

This is not to say that the scientists do not believe the ATS members have no responsibilities to take action within the region. To the contrary, SCAR reminds countries that those nations active

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in Antarctica "have declared an obligation to implement the mitigation and adaptation actions that will reduce climate change-related and other human impacts on Antarctic marine and terrestrial environments, their ecosystems and biodiversity, and the ecosystem services they deliver" (Chown et al., 2022). Although the official presence in Antarctica is small—around 5,000 staff and scientists during the summer peak, and its footprint is less than one percent of the continent (Brooks et al., 2019)—its presence does have a negative impact on Antarctica's environment, particularly since it is currently not subject to systemic environmental planning (Brooks et al., 2024). There are higher amounts of black carbon (Cordero et al., 2022) and waste pollution (Stark et al., 2023) near stations and tourism stops, and less than half of all stations use renewable energy for any portion of their power generation (Lucci et al., 2022). The additional pressure of voluntary tourism activities has also spurred concerns (ATCM, 2023a), particularly since the amount of carbon emitted per tourist has ranged from 3.2 tons (Li et al., 2022) to 5.44 tons (Farreny et al., 2011). In addition to emissions, there is a growing concern that the increasing number of tourists and the variety of their activities, combined with the absence of provisions specific to tourism, will result in a negative impact on Antarctica's environment, including possibly harming wilderness values; interfering with scientific research, including reducing the amount of pristine areas to study; and disrupting ongoing national and scientific programs, e.g. through emergency search-and-rescue responsibilities (Bastmeijer et al., 2023). While more monitoring and studies need to be done (Tejedo et al., 2022), research to date has concluded that humans have a negative but transitory impact on wildlife (Coetzee & Chown, 2015 ; Liggett et al., 2023).

Over the past few years, all members of CCAMLR except China and Russia have agreed on the need to establish three marine protected areas (MPA) in the Southern Ocean. The majority support these MPAs to act in a precautionary manner—to preserve biodiversity and allow vulnerable ecosystems extra protections as they adapt to an environment rapidly altering because of global climate change (CCAMLR, 2023). China and Russia have demanded additional information about the proposals and have questioned the value of establishing the MPAs since these precautionary actions in their limited areas would not halt climate change. China and Russia have also opposed coordinating collective action to mitigate the impact of global climate change in Antarctica, although their refusal to join consensus does not prevent other countries active in Antarctica from coordinating their efforts in the region (ATCM, 2022b); indeed, Chinese and Russian opposition to joining collective action in the region will likely further minimise the relevance of those two countries in Antarctica since rarely does isolationism strengthen a country's relevance in the long-term.

Exploitation of petroleum, natural gas, or rare earth minerals, along with any other non-scientific mining, is prohibited by Article 7 of the Environmental Protocol (Antarctic Treaty Secretariat, n.d.). This provision does not expire in 2048 nor in any other year; since Antarctic Treaty parties have repeatedly stated their support for the ban, the provision is unlikely to be replaced (ATCM, 2023c). Such a clear legal prohibition, combined with the absence of sovereignty and property rights and the remarkably difficult Antarctic environment, all make it unlikely that mining will occur, but the periodic news of likely prospecting for hydrocarbons (Dodds, 2023b; Coleman, 2024) will continue to fuel well-reasoned calls for an even stronger ban on mining (Flamm & Hemmings, 2022).

Fourth point

The fourth and final NSM-23 point is to conduct scientific research. The absence of sovereignty allows scientists to conduct their research in Antarctica without regard to passports or international bureaucracies. Article II of the Treaty safeguards scientific research in the region while Article III strongly encourages scientific cooperation and information sharing. The results of having access to an entire region are impressive; notable findings include identifying the hole in the ozone (Farman et al., 1985); a detailed history of climate over hundreds of thousands of years through ice cores (International Partnership in Ice Core Sciences [IPICS], n.d.); and a neutrino detector that recorded an extremely high-energy neutrino in 2017, which allowed scientists, for the first time, to trace such a particle back to its source 5.7 billion light-years away (IceCube Collaboration, 2018). These represent only a fraction of the groundbreaking discoveries enabled by the Antarctic Treaty's spirit of global cooperation.

There are various ways to measure scientific output by country. The number of publications in peer-reviewed papers and number of citations for those papers are generally seen as a reliable means to quantify scientific impact. Analyses of peer-reviewed journals over multiple decades concluded that the United States had the greatest number of publications and citations and was engaged in the greatest amount of international scientific collaboration in Antarctica (Dastidar, 2007; Ji et al., 2014; Jang et al., 2020).

There are also several ways to measure scientific investment, including budget and operational capacity. Due to limited budget transparency about scientific and operational expenses in Antarctica, particularly by China, the number of beds in a scientific station is likely the most reliable means to compare operational capacity and therefore potential scientific output. The five largest operations in Antarctica, based on the number of beds, are managed by the United States (1,399 beds), Argentina (601), Chile (427), Russia (335), and Australia (243) (COMNAP, 2017). By taking advantage of the absence of sovereignty and the resulting peace and real-world scientific cooperation, the US has established and maintained leadership in scientific capacity and output to increase our understanding of the world around us, which is clearly in US national interests (National Academies of Sciences, Engineering, and Medicine [NASEM], 2022).

In November 2024, the American voters selected former president Trump to return to that position starting in January 2025. The next Trump Administration has many goals, but Antarctica is unlikely to feature heavily in the administration's plans given the continent's remoteness from US national interests (Muntean, 2024c). It is probable the Trump Administration will increase attention to rebuilding the US icebreaker fleet, but that attention will stem more from needing vessels in the Arctic than in the Antarctic. Given the increasing speculation about Chinese capabilities in the region and traditional US use of unannounced inspections, there should be at least one unannounced inspection during the next four years and ideally, there will be more. Given Trump's pledge to withdraw from the Paris Agreement, it is improbable the United States will take a leading role in combating global climate change, which is the leading cause of environmental harm in Antarctica; however, the US might support localised efforts to mitigate those effects.

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What if a policy changes?

If a future administration determined the current policy was not effective, leaders should seek solutions that address the problem without creating significant new problems. Most problems and solutions could be handled through negotiations in the ATS or by more rapidly implementing commitments made in the UNFCCC. As already noted, ATS negotiations have resulted in numerous binding decisions on complex issues like fishing and environmental protection. There are growing concerns that the ATS might not be robust enough to conclude and enforce future binding agreements; these concerns are driven by the sustained failure of the United States to ratify three binding measures along with the aforementioned difficulty of obtaining consensus for the three pending MPAs (Hemmings, 2018). However, it is possible that an issue could obtain sufficient importance and urgency that the United States questions the framework it has championed since 1958, the framework based on its policy first announced in 1924. In such a case, the United States could consider two radically different policies.

One position would be for the United States to claim sovereignty over all or some portion of Antarctica. A prominent US think tank hosted a two-day Antarctica conference in September 2023, during which former US Deputy Secretary of State John Negroponte raised this possibility; he noted that President Trump had during his first administration offered to buy Greenland from Denmark to advance US interests in the Arctic, so Negroponte asked panelists what the impact would be if a future US president made a similar move by making a US territorial claim in Antarctica (Wilson Center, 2023). Judging from the responses of the panelists, which included officials knowledgeable and responsible for Antarctica from the US National Security Council and US Department of State, such a question was as welcome as a skunk at a picnic and all panelists correctly and diplomatically avoided a substantive response to Negroponte's hypothetical question. At the risk of becoming that unwanted skunk by examining a fundamental aspect of US geopolitical strategy and Antarctica's political structure, I will hazard a short answer to Negroponte's question: If the US were to abandon the 1924 policy by making a territorial claim, it would jettison its 100-year-old policy, foregoing Article IV along with the rest of the Antarctic Treaty and the entire system that builds on it. The result? The United States would spend more money, time, and effort to obtain fewer rights in an Antarctica that would be politically, strategically, and environmentally less stable than what currently exists.

To stake a territorial claim, the US would need to exit the Antarctic Treaty, since its Article IV prohibits acting on territorial claims (Rothwell, 2019). The departure of the United States from the Treaty it established would send a green light to countries to reinforce existing claims or make new claims, creating conflict across Antarctica. In addition to the existing seven claimants, other countries active in the region, like China, as well as those whose engagement in Antarctica has been limited to bluster, like Iran, might make their own claims. The United States would also need to address opposition from the vast majority of countries that have not recognised any country's territorial claim; a clear signal of this opposition is that no country, other than other territorial claimants, supports any of the current frozen territorial claims. Additionally, there would likely be a significant backlash against the United States in the court of public opinion given the increasing knowledge of Antarctica's importance in the global climate system, its vulnerability to climate change, and the large negative impact Antarctica could have on countries around the world, particularly related to global sea level rise.

Another issue is that the United States would need to decide what territory to claim, including determining which allies to upset. This was one of the reasons the United States decided not to make a claim in 1958 and this issue has not disappeared in the subsequent decades. Some US officials might be dismissive of another country's claim, but each of the seven countries has maintained its claim for decades, and each country, in its own way, celebrates its role as an Antarctic nation, some for longer than one century. The United States has demonstrated no similar level of public consciousness or political interest in being an Antarctic claimant, so there is unlikely to be any American public support for such an unnecessary and counterproductive action. The United States would want to be certain that the area it claims has sufficient benefit (political, military, economic, etc.) to outweigh the political (including loss of goodwill and trust), scientific, environmental, and logistical costs associated with the claim. It would also want to consider the benefits of the territory it does not claim so it knows what it can no longer access unfettered.

The third issue is that the United States would need to effectively take possession of the newly claimed Antarctic territory, including addressing operational needs to travel to and survive in those areas and removing or otherwise charging "rent" to countries already present in that area. Currently, US air and naval logistics run through two claimants (Chile and New Zealand), neither of which is guaranteed to support a US logistics chain that would threaten their own interests in Antarctica. Two of the other three "gateway" cities through which most Antarctic logistics flow also go through claimants (Argentina and Australia), so any claim of sovereignty would likely face similar opposition. Only the Gateway city of Cape Town, South Africa, lacks such complications; however, it is likely South Africa would also oppose such a US initiative due to South Africa's principled position opposing anything approximating colonisation, as well as its long-standing relationship with Russia. Additionally, the United States has well-known challenges with icebreakers—hence the need for ICE Pact—as well as significant challenges with its existing stations and air operations. These three reasons, plus others not addressed here, is to say that abandoning the Treaty and ending its Hughes Doctrine at a time when the United States is unprepared to increase its Antarctic activities would take the US and the world into uncharted stormy waters.

The opposite option to establishing sovereignty would be to further remove national governments from the decision-making process about Antarctica. At least one group has advocated Antarctica be granted legal identity and that individuals would be authorised to speak on behalf of the region (Lin, 2024). As the proponents acknowledge, however, it is unclear how these individuals would be selected and—regardless of who is chosen—how to prevent those future representatives from introducing their national biases or echoing the position of their national governments. It is also unclear how these Antarctic representatives would have any influence over national governments, since governments are unlikely to voluntarily relinquish their rights and interests over the region; the increasing global trend toward authoritarianism (Freedom House, 2022), coupled with long-standing sovereignty claims, makes a radical devolution of power highly improbable.

Conclusion

One century is a long time for a policy to be in place, but it is hard to argue with success. The 1924 Hughes Doctrine was the first official statement by the United States on Antarctica and has guided its

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opposition to other countries' policies that would have turned the southern continent into just another place on the globe divided by sovereignty. The Antarctic Treaty of 1959, which translated US policies based on the Hughes Doctrine into international law, is frequently cited as a diplomatic success due to its ability to bridge conflicting positions on sovereignty, establish a unique governing structure for a unique part of the world, and maintain an entire region for peace and science for decades. While there are and will be challenges in obtaining and maintaining consensus on how to manage such a large portion of the Earth, the United States will continue to have significant opportunities to achieve its goals in the region so long as it remains active in Antarctica and the Antarctic Treaty System.

Age alone is not a reason to alter a policy. Equally, age alone is not a reason to assume the policy remains valid. There may be a time when the United States decides to review its century-old policy of denying any country, including itself, the ability to make a territorial claim to Antarctica. At least according to the May 2024 national policy, the United States is currently satisfied with Antarctica and the Antarctic Treaty System, and although there are challenges within the system, the system has demonstrated resilience to even greater challenges in the past.

Policies and treaties are mere words on a paper unless those words result in action. In this case, the United States not only maintained the Hughes Doctrine but also built on it over the course of 100 years by thoroughly investigating and then rejecting its own territorial claim, leading negotiations that resulted in the Antarctic Treaty, and making successive presidential decisions to reinforce the Treaty by creating a system around it. These decisions included increasing the formal role of science and scientists and diplomats both in the region and in the decision-making rooms, approving sufficient budgets to maintain the geopolitically important South Pole station and two coastal stations, and prioritising environmental protection over potential economic gains through CAMLR Convention and the Environmental Protocol. It is too soon to tell if the United States will back up the words on its updated NSM-23 policy by, for example, prioritis ing the entry into force of three binding measures the US agreed to over 15 years ago (Bloom & Muntean, 2024) and by rapidly addressing logistical and operational constraints that restrict its ability to conduct world-class research. However, the US will take those steps if it wishes to continue to be seen as a leading actor in Antarctica.

Looking back over the course of one century, the decisions do not flow in an orderly straight line—the US Government's consideration of its own territorial claim and its interest in maintaining a small opening for mining are the most significant examples. However, when faced with significant decisions about Antarctica, the United States prioritised setting a high bar to sovereignty, negotiating an inclusive Antarctic Treaty, and expanding the Antarctic Treaty System over asserting its own sovereignty—a series of decisions over one century that advanced US national interests in the region and around the world.

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