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PROTECTING UNITED STATES INTERESTS IN ANTARCTICA

A THESIS

PRESENTED TO

THE JUDGE ADVOCATE GENERAL'S SCHOOL, UNITED STATES ARMY

The opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of The Judge Advocate General's School, the United States Army, or any other governmental agency.

Best Available Copy

by Captain Ronald W. Scott, JAGC

United States Army

36th Judge Advocate Officer Graduate Course

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PROTECTING UNITED STATES INTERESTS IN ANTARCTICA

by Captain Ronald W. Scott

ABSTRACT: This thesis begins by presenting a geographic overview of the physical features and resources in Antarctica and the Southern Ocean. Next, it details the history of claims and interests over Antarctic territory, with particular emphasis on United States activities. Aspects of the United States-initiated Antarctic Treaty regime are then explored, including management of living resources and potential exploration and exploitation of nonliving hydrocarbon and mineral resources. The thesis points out past weaknesses in United States Antarctic policymaking, and recommends a broader role for the Department of Defense in areas such as safety and security. The thesis also recommends that the Antarctic Treaty consultative parties resolve the issue of criminal jurisdiction over offenses committed in Antarctica before the theoretical problem arises in practice, suggesting a model fashioned somewhat after the North Atlantic Treaty Organization's Status of Forces Agreement. Finally, the thesis highlights the recent influence of the United Nations over Antarctic affairs, and proposes that the governing Antarctic Treaty consultative parties should cooperate more with the United Nations in order to avoid

confrontation over the impending minerals regime.

Suspension of South Africa from consultative status is recommended as a means of dampening United Nations' opposition to the minerals regime, and of preventing eventual dissolution of the regime over these and other issues.

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INTRODUCTION

The "Question of Antarctica"(1) is one that the world community of nations chose to ignore until the mid-1980s. When it was negotiating a regime to govern the world's ocean space, the United Nations Convention on the Law of the Sea (UNCLOS)(2) left untouched the concomitant problems posed by Antarctica and its surrounding Southern Ocean. This omission resulted in part because the likelihood of failure to reach consensus regarding ocean space in general would have been heightened by their inclusion, and in part because of a general sense of a lack of immediacy to resolve Antarctic issues.

Antarctica has been effectively administered by the consultative parties of the United States-initiated Antarctic Treaty system since 1961(3). That regime, for purposes of protection of the environment and its ecosystems and international cooperation in scientific research, is tacitly recognized by the international community as the legitimate administrative power in Antarctica and the Southern Ocean(4). As the advent of a minerals regime that will permit exploitation of the region's nonliving resources draws near, however, the outside world, particularly the United Nations, is showing increasing interest in participating in Antarctic

affairs.

This article begins with a geographic overview of the region, followed by a summary of historical bases for claims and interests. It concludes with the identification of and suggested solutions for select domestic and international problem areas confronting the United States as it strives to continue its traditional leadership role in maintaining the ever-more-fragile Antarctic Treaty system.

CONTINENTAL AND OCEANIC FEATURES AND RESOURCES

Antarctica is unique among the seven continents in many respects. Its land mass comprises almost one tenth of the earth's land surface, an area nearly one and one-half times the size of the United States(5). The coldest of all continents(6), Antarctica is covered almost entirely by a one-to-three mile-deep layer of fresh-water ice, giving it the highest continental elevation(7).

Because its average annual (water equivalent) precipitation amounts to only a few inches(8), Antarctica is, in geologic terms, a desert. Its one river, the Onyx, flows only eighteen miles and then only during the summer season(9). No species of trees or land vertebrates inhabit the continent(10).

Geologists hypothesize that Antarctica was, during the Mesozoic Era (some 100 million years ago), along with Africa, Australia, India, Madagascar, and South America, part of the supercontinent Gondwanaland(11). Through continental drift, however, Antarctica was eventually isolated in its present location(12). Today, its closest neighboring continent, South America, lies over six hundred miles away, while the nearest population center, Buenos Aires, is 1,800 miles away from the Antarctic peninsula(13).

Existing and potential Antarctic resources span the widest range. At one extreme, research scientists have used the desolate continent as a standard of comparison for the detection of interplanetary life(14). Antarctica is also the most fertile source on earth for fallen meteorites(15).

At the other extreme, and of more pragmatic interest, the continent and its shelf are believed to contain vast mineral deposits, including chromium, coal, cobalt, copper, diamonds, gold, iron, manganese, nickel, uranium, and other scarce mineral resources(16). This belief is supported by reported occurrences of some of these minerals(17), and the generally accepted hypothesis advanced by plate tectonic geologists that Antarctica and

its continental shelf share the known mineral deposits found in the rest of the former Gondwanaland, including South Africa and South America(18). The continental shelf may also contain natural gas and oil deposits in the magnitude of tens of billions of barrels, a cache roughly on a par with known Iranian oil reserves(19). To date, both the continent and its shelf have not been commercially exploited, because it has been economically and politically unfeasible to extract their bounty.

Antarctica's ice is also an important potential resource. The continent contains nearly ninety percent of the world's fresh water(20), which may be the key to this planet's hydrologic balance in the next century and beyond.

In contrast to theoretical continental-based resources, offshore living resources in the Southern Ocean are of known abundance, and are easily harvestable. At the base of the region's ecosystem is the krill, a five centimeter-long shrimp-like crustacean which is the major food source for five species of whales, three types of seals, twenty fish, and various bird and cephalopod populations(21). Krill are so abundant in the Southern Ocean that it is estimated that sustainable yields equal to or greater than the current total world marine catch

could easily be harvested each year(22). Because it has such a high protein content, krill is an invaluable potential source of human sustenance for developing nations. Despite its potential benefits to mankind, however, it is universally recognized that uncontrolled depletion of krill would have a devastating and irreparable impact on the food chain in the Southern Ocean. The Convention on the Conservation of Antarctic Marine Living Resources(23) was negotiated and came into force in response to this potential environmental impact.

HISTORICAL BASES OF CLAIMS AND INTERESTS

More than a decade before the inception of the Antarctic Treaty regime(24), Jessup noted that "a claim with reference to submarine lands and waters adjacent to the Antarctic continent must find basic support in the maintenance of a claim to sovereignty over the land itself." (25) In spite of the fact that territorial claims are frozen under the Antarctic Treaty regime(26), Jessup's statement highlights the need to analyze and understand the historical bases of national claims and interests when attempting to assess the current geopolitical situation in the region. This section presents an overview of national interests, with

particular emphasis on United States interests.

Antarctica was the last continent to be discovered. The ancient Greeks believed that a large land mass existed in the south to counterbalance northern continents(27). Antarctica was first circumnavigated by Captain James Cook in 1772, although the continent itself was not actually sighted until 1820, by one or more of three explorers: Palmer (USA), Bransfield (U. K.), and Bellingshausen (USSR)(28).

The foci of interests in Antarctica in the nineteenth century were whaling and seal hunting in the Southern Ocean. Interest in scientific research developed at the turn of this century. In 1911, Amundsen (Norway) became the first person to reach the geographic South Pole, ahead of Scott (U. K.)(29).

Between 1908 and 1940, seven countries laid claims to parts of Antarctica and adjacent offshore areas, including: the United Kingdom (1908), New Zealand (1923), Australia (1933), France (1938), Norway (1939), Chile, and Argentina (1940)(30). Sectors claimed by Argentina, Chile, and the United Kingdom largely overlap and are hotly disputed(31). Other claimants either recognize or at least do not dispute each other's territorial claims(32). A large sector - approximately fifteen

percent of the continent - has never been officially claimed by any nation(33).

Australia, France, and the United Kingdom base their claims primarily on the discovery theory(34), with the underlying assumption being that Antarctica was and is terra nullius ("territory of no one"). However, inchoate title to land claimed by discovery must, under international law, be perfected by effective occupation within a reasonable period(35). Because no claimant nation can be sure that its historical activities or occupation of scientific research stations meets either the effective occupation or the reasonable period test, alternative bases of territorial claims are invoked to supplement the discovery theory. These include exploration(36), continuity(37), contiguity(38), the sector principle(39), and uti possidetis(40). Even activities conducted pursuant to the Antarctic Treaty(41), such as scientific research, the exercise of administrative authority(42), and minerals exploration and exploitation(43), may bolster traditional bases for claims, or constitute new ones.

By 1957, when the International Geophysical Year(44) commenced, five other nations - Belgium, Japan, South Africa, the United States, and the Union of Soviet

Socialist Republics - claimed historical interest in Antarctica(45), though none made any official territorial claim to territory, nor recognized antecedent territorial claims of others. It is particularly noteworthy that the United States never formally made an official claim to Antarctic territory, since it has the most extensive history of activity on the continent among all interested and claimant nations(46).

The first documented American activity in Antarctica was a sealing expedition to the South Georgia Islands in 1790(47). After Captain Palmer's disputed first discovery of the continent in 1820(48), Congress commissioned a worldwide scientific operation, the Wilkes' United States Exploring Expedition, headed by Navy Lieutenant Charles Wilkes(49). Wilkes surveyed and mapped 1,500 miles of the Antarctic coast (in what later became the Australian Antarctic Territory), and firmly determined Antarctica's status as a continent(50).

An eighty-eight year lull in American activity ensued, until Admiral Richard E. Byrd undertook two unofficial expeditions which brought large-scale mechanized exploration to Antarctica for the first time(51). The first, between 1928 and 1930, gave rise to the first flight over the South Pole in 1929(52). On this

expedition, Byrd surveyed Marie Byrd Land, an area east of 150 degrees W, overlapping the western border of New Zealand's claim, the Ross Dependency(53), and unofficially claimed it for the United States(54). He also established the first American base, Little America, on the Ross Ice Shelf(55). Byrd's second expedition, from 1933 to 1935, continued work in Marie Byrd Land(56).

After Byrd's private expeditions, Lincoln Ellsworth carried out two operations in 1935 and 1939, which although privately undertaken, were sanctioned by the Department of State(57). Ellsworth laid claim on behalf of the United States to Ellsworth Land, adjacent to Marie Byrd Land and the Antarctic Peninsula(58).

Consistent with established international law principles, the United States official policy was that Antarctica was not susceptible to being validly claimed absent effective occupation(59). Therefore, the United States did not ratify either Byrd's or Ellsworth's claims.

Admiral Byrd led the first official United States expedition to Antarctica in 1939. It was empowered to lay the groundwork for an official claim to Antarctic territory and did so by implanting the American flag and placing written claim flyers in cairns around Marie Byrd

and Ellsworth Lands(60).

Several military exercises took place in Antarctica after World War II, with dual missions of training and strengthening the basis for a claim to Antarctic territory by the United States. Operation Highjump, in 1946-47, was the first of these exercises(61). With 4,700 military personnel and eleven members of the press corps, thirteen ships (including, for the first time, an aircraft carrier and icebreakers), nineteen planes, and seven helicopters, this is the largest recorded expedition ever undertaken to Antarctica(62). Operation Highjump had as its missions aerial photography of the continent and airdropping of claims flyers(63). In the U.S Naval Antarctic Developments Project, 1947 (Operation Windmill), claims leaflets were again airdropped in containers and deposited in cairns, and extensive military training and equipment testing took place(64). The United States government, however, never officially consummated any territorial claim in Antarctica.

In 1954-55, in advance of the International Geophysical Year(65), the United States Navy Antarctic Expedition conducted reconnaissance surveys and established the project's support base(66). The ensuing operation, Deep Freeze I, from 1955-56, established the

first permanently-manned base, Naval Air Facility, McMurdo, on Ross Island, and put in place the Antarctic Development Squadron Six (VXE-6)(67).

Antarctica's status as either terra nullius or res communis ("territory of all") remains unresolved. Claimant nations invoke the former classification as a means of justifying their territorial claims, while non-claimant interested nations and the world community-at-large consider the continent to be res communis, insulating it from national appropriation(68). Also unresolved are the status and sovereignty issues regarding Antarctic ice formations, particularly the extensive shelf ice(69), with features similar to terra firma.

THE ANTARCTIC TREATY REGIME

For eighteen months during 1957 and 1958(70), the international scientific community engaged in the first cooperative venture in Antarctica - the International Geophysical Year. This research project was a non-governmentally-sponsored effort under the auspices of the International Council of Scientific Unions(71), and involved scientists from twelve nations operating sixty-six stations(72).

The support role of the United States Naval Support Force was extensive and invaluable. It included the first regular flights to and from the continent, establishment of inland research stations by tractor traverses, and the first use of giant cargo planes to airlift supplies to the South Pole's Amunden-Scott Station(73).

At the end of the International Geophysical Year, the Soviet Union announced that it would maintain its stations and continue scientific research. President Eisenhower, anticipating an unwanted extension of the cold war between the superpowers, quickly organized a multilateral conference among the twelve claimant and historically interested nations to arrange multilateral administration of the region for continuing scientific research activity(74). Within six weeks of the convening of the conference, the Antarctic Treaty(75) was signed by the twelve "original signatory" nations present, on December 1, 1959(76). The treaty entered into force on June 23, 1961(77).

The treaty originally applied only to the continent and ice formations located south of sixty degrees south latitude(78). It declared that Antarctica would be used only for peaceful purposes(79). The treaty provided for

freedom of scientific research(80) and cooperation among the contracting parties in carrying out scientific research, including sharing of personnel and research data and findings(81). It established a kind of tenancy in common over the entire treaty area, including cotenants' research facilities, which are subject to formal unilateral inspection at any time by any contracting party(82). Consistent with its charter, the treaty prohibited military operations(83), atomic explosions(84), and nuclear waste disposal on the continent(85). The treaty froze the issue of territorial claims, and further provided that neither new claims nor extensions of existing ones would be recognized(86).

Although the treaty established no formal governing structure, fourteen in camera biennial consultative party meetings have been held since 1961(87), from which 164 formal recommendations have resulted, on issues ranging from mineral resources to telecommunications to tourism(88). A majority of recommendations concern protection of the Antarctic environment and ecosystem(89).

These recommendations are the only formal policymaking mechanism of the Antarctic Treaty regime. The Antarctic Treaty regime administers Antarctic affairs by consensus.

For any recommendation to become binding, it must be unanimously adopted by consultative parties present at a meeting and formally ratified by the governments of all consultative parties(90). To date, 138 recommendations have been adopted(91).

The most recent consultative meeting was held in Rio de Janeiro from October 5-16, 1987(92). Significant recommendations adopted in Brazil included, among others, establishment of a presumption that consultative meeting documents are public, unless labeled as restricted (reversing prior practice)(93), and adoption of environmental impact assessment guidelines consistent with United Nations Environment Programme principles and United States domestic law(94). The parties deferred adoption of recommendations concerning limitations on tourism and nongovernmental expeditions, depletion of the ozone layer over Antarctica, and creation of an organizational infrastructure to support the Antarctic Treaty consultative process(95).

The issue of an organizational infrastructure is particularly salient. The Antarctic Treaty regime has thrived over the past twenty six years without a bureaucracy. It has neither a secretariat nor an international headquarters. Early objection to a such a

governing structure by the United States and other original signatory consultative parties was based in part on a desire to carry out scientific research informally, free of the encumbrance of a bureaucracy(96). Additionally, the United States initially wanted neither Soviet nor United Nations participation in such a governing structure(97).

Over time, however, new considerations have developed that militate in favor of creation of some kind of infrastructure for the regime. The number of treaty parties has grown from twelve to thirty seven since 1959(98), with political and socioeconomical divergence more extreme than that of any other international organization on earth. Fear of Soviet mischief in Antarctica has proven to be unfounded. In fact, United States representatives privately acknowledge that their working relationships with Soviet counterparts within the Antarctic Treaty regime are excellent. Additionally, the entry into force of treaties subsequent to, but interdependent with, the Antarctic Treaty(99), coupled with the impending establishment of an Antarctic minerals regime which will have a secretariat and infrastructure(100), make the establishment of a core infrastructure for the Antarctic Treaty system a

necessity. Finally, interest in Antarctica on the part of the United Nations(101), other international organizations(102), states not party to the Antarctic Treaty (103), nongovernmental organizations(104), and private persons(105) has increased dramatically since 1959, particularly in the last five years.

At the fourteenth consultative party meeting, the United States presented a working paper on establishing an infrastructure for the regime. The paper addressed four perceived areas of concern: 1) support for consultative meetings, 2) archives and information dissemination, 3) relations with external organizations, and 4) financial administration(106). While the United States has tempered its opposition to an infrastructure and now recognizes a need for "some type of small or modest secretariat or office," (107), a minority of treaty parties still opposes the establishment of any sort of infrastructure, based, in part, on a fear that additional organization "would alter the present system in [unspecified] unforeseen ways." (108) Discussion of the problem was tabled until the fifteenth consultative meeting.

An additional concern related to the organizational issue is the increasing cost associated with hosting

consultative party meetings. Under the current arrangement, consultative parties volunteer to host meetings and individually bear the full cost of hosting them. As the membership in the consultative party structure has expanded to include many third world nations, the ability of a wider circle of members to bear the financial costs of hosting meetings has been strained. Additionally, the lack of diplomatic relations among and with several new members impedes new members from hosting meetings. Discussion of this problem area was similarly raised and deferred at the fourteenth consultative party meeting(109).

While any United Nations member-nation, or any other nation invited by all the consultative parties, may accede to the treaty, only those acceding nations that conduct "substantial scientific research activity in Antarctica, such as the establishment of a scientific station, or the dispatch of a scientific expedition"(110) can achieve consultative party status, and share administrative power with the original signatory consultative parties. Formal admission of consultative parties takes place at special consultative meetings, of which there have been seven to date(111).

While the discretion as to what activity is

substantial enough to merit consultative party status rests solely with the sitting consultative parties, every nation that has sought consultative party status thus far has gained admission to the governing body. The eight nations that have joined the original signatories as consultative parties include: Poland (1979), the Federal Republic of Germany (1981), Brazil (1983), India (1983), the People's Republic of China (1985), Uruguay (1985)(112), Italy (1987), and the German Democratic Republic (1987)(113). Collectively, the eight entrants expended hundreds of millions of dollars to achieve consultative party status(114).

Acceding nonconsultative parties-state attend sessions only at the invitation of the consultative parties. They have been allowed to attend regularly since 1984(115). These states have no voice in decisionmaking. The seventeen nations that have acceded to the Antarctic Treaty and not gained consultative party status include: Austria, Bulgaria, Cuba, Czechoslovakia, Democratic People's Republic of Korea, Denmark, Ecuador, Finland, Greece, Hungary, the Netherlands, Papua New Guinea, Peru, Republic of Korea, Romania, Spain, and Sweden(116).

Several acceding, nonconsultative states, namely Peru, the Republic of Korea, Spain, and Sweden(117), are

expected to seek consultative party status in the near future, and may try to accelerate their applications in order to gain consultative status before a minerals regime is concluded, to ensure their permanent representation on the governing commission(118). Privately, some consultative parties have expressed concern over the relative ease by which states gain consultative status. There is also a perceived need to establish some sort of threshold level of scientific research activity that must be maintained in order to continue consultative status. This issue derives in part from the concern over the relative stagnation of the programs of two original signatory nations-Belgium and Norway, which, by virtue of their status as original signatories to the Antarctic Treaty, enjoy permanent consultative party status irrespective of their level of activity or maintenance or non-maintenance of stations(119). At the fourteenth meeting, the United States proposed the adoption of three guidelines for states seeking consultative party status, based on past scientific activities, prospective activities, and program management in Antarctica(120). These guidelines were incorporated by the regime into its nonbinding final report(121).

Management of Living Resources

While the Antarctic Treaty itself did not encompass the management of Antarctic resources, the concern for the protection of living resources became the primary focus of the consultative parties soon after the treaty took effect. Over the years, three significant agreements, building one on the other, were reached regarding the preservation of the Antarctic ecosystem: the Agreed Measures for the Conservation of Antarctic Fauna and Flora(122), the Convention on the Conservation of Antarctic Seals(123), and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)(124). Together with the Antarctic Treaty, these codicil treaties comprise the Antarctic Treaty System.

CCAMLR is particularly significant, in that it extends the geographic "jurisdiction" of the Antarctic Treaty System northward to the Antarctic Convergence(125). The primary goals of CCAMLR are to regulate fishing of depleted finfish stocks and to control the harvesting of krill(126), which are most heavily concentrated within 200 nautical miles of the Antarctic continent and various islands south and north of sixty degrees latitude(127).

CCAMLR was negotiated from 1978 to 1980 by the

Antarctic Treaty consultative parties, Poland, the Federal Republic of Germany, and the German Democratic Republic, with technical advice from the nongovernmental Scientific Committee on Antarctic Research (SCAR)(128). At the final meeting in Canberra, observer status was conferred on the International Union for Conservation of Nature and Natural Resources(129). Observer status was denied to the Republic of Korea, the Netherlands, and the European Economic Community, largely because of Soviet and East European objections(130). The negotiating parties also rejected a request by India and other nations to insulate the Indian Ocean sector from any krill harvesting activities sanctioned under CCAMLR(131).

CCAMLR clearly perpetuates and broadens the power base of the Antarctic Treaty consultative parties over Antarctic and Southern Ocean activities. States acceding to CCAMLR must agree to "acknowledge the special obligations and responsibilities of the Antarctic Treaty Consultative Parties to the protection and preservation of the environment of the treaty area,"(132) and are prohibited from asserting or recognizing territorial claims in Antarctica and the Southern Ocean(133).

While states which are original signatories to CCAMLR automatically are members of the regulatory commission,

only those acceding states which "[engage] in research or harvesting activities in relation to marine living resources," to the unanimous satisfaction of commission members, may join the commission, and then only while they maintain research or harvesting activities(134).

Antarctic Mineral and Hydrocarbon Resources Policy

The issue of resources exploitation did not figure prominently in negotiations over the Antarctic Treaty, where it was expedient merely to quickly formalize some sort of foundational cooperative regime. In fact, except for an indirect reference in Article IX to the consultative parties' responsibility to protect living resources(135), the treaty is silent on the issue of Antarctic resources. Perhaps this was because, at that time, the necessary technologies for extraction of nonliving resources did not exist.

Interest in developing nonliving Antarctic resources developed within the regime in the early 1970s. That interest was advanced primarily by the United States, which has consistently urged that the definition of permissible "peaceful purposes" in Article I of the Antarctic Treaty encompasses not only shared access to Antarctica for research purposes, but also the right to

exploit continental and offshore mineral and other nonliving resources, so long as strict environmental protections are observed(136).

South American claimant nations initially opposed the United States' initiative to consider nonliving resource development, fearing erosion of their tenuous juridical positions concerning their territorial and concomitant offshore claims(137). Although tempered somewhat over time, this defensive claims-based opposition has carried over into the current minerals regime negotiations.

Japan and the Soviet Union also initially opposed minerals and hydrocarbon resource development, based on a perception that existing environmental safeguards were inadequate to preserve the ecosystem(138). As technologies and political and other considerations advanced, their opposition gave way.

The consultative parties first informally discussed the need for regulation of Antarctic minerals activity at the Sixth Consultative Meeting(139). The first recommendation pertaining to minerals came out of the Seventh Consultative Meeting, which urged further study of the effects of minerals exploration(140).

At the Eighth Consultative Meeting, the parties agreed to voluntary unilateral restraint while the regime

pursued Antarctic minerals development(141). They also invited SCAR to participate in the development of an Antarctic minerals policy by preparing a preliminary assessment of environmental impact, and set the stage for a special preparatory minerals meeting in Paris in June and July, 1976(142).

The conclusion by SCAR that the risks to the Antarctic environment from minerals exploration and exploitation were not too great to rule out such activity altogether(143) gave impetus to continued discussions. The principles derived from the Special (Paris) Preparatory Meeting were adopted in Recommendation IX-1(4)(144) at the Ninth Consultative Meeting. These principles set the stage for all future Antarctic minerals negotiations, and consolidated responsibility for development of policy in the Antarctic Treaty consultative parties. The parties also agreed at the Ninth Consultative Meeting to urge their nationals and states not party to the Antarctic Treaty to refrain from any minerals activity pending implementation of a minerals regime(145).

The recommendation that followed at the Tenth Meeting stated that the prospective minerals regime would govern all aspects of Antarctic mineral resources activities

found acceptable by the regime, including ecological, technical, political, legal, and economic considerations(146). In addition, the regime would be empowered to establish and enforce rules relating to environmental protection(147).

By the Eleventh Consultative Meeting in 1981, the parties perceived a sense of urgency in concluding a minerals regime(148) and having it in place before the existence or extent of mineral and hydrocarbon resources becomes known and before economic or technological considerations make exploitation feasible. They also wanted to ensure that an internally generated minerals regime was in place before the United Nations took any initiative to establish a competing regime. In that vein, the parties set out four foundational principles that have pervaded all subsequent special consultative minerals negotiations:

- 1) the Antarctic Treaty consultative parties will control the negotiation and implementation of a minerals regime;

- 2) the entire Antarctic Treaty will be preserved, and in particular, the provisions of Article IV pertaining to territorial claims will not be affected by any activities undertaken pursuant to the regime;

3) protection of the Antarctic environment and ecosystem are a basic consideration of any proposed action under the regime;

4) the activities of the regime should be acceptable to all states which are not Antarctic Treaty consultative parties, and should not otherwise prejudice the interests of all mankind in Antarctica(149).

Since the adoption of Recommendation XI-1, approximately twelve formal special consultative minerals meetings have taken place(150). The meetings' chairman, Ambassador Christopher Beeby of New Zealand, personally drafted and submitted at least five "chairman's informal personal reports" on the proposed minerals regime(151), which, although intended to be confidential, were inadvertently distributed to the public by one or more delegations to the meetings.

It is beyond the intended scope of this discussion to describe the mechanics of the proposed minerals regime in great detail(152). Although the skeleton structure has changed little since the first Beeby draft, delicate negotiations continue on many important issues, such as, the jurisdictional reach of the regime, conflict of laws issues, liability, compulsory arbitration, government subsidization of operators, the weighting of

royalties in favor of claimant states, membership on decisionmaking bodies, and the extent of and conditions on participation in mining activities by developing nations.

The success of the negotiations thus far is largely attributable to the personal diplomacy of the affable Chairman Beeby and his ability to translate nuances into the consensus required to pull off this "all or nothing" package deal(153). He has repeatedly remarked regarding states' expectations, "Everybody is a little bit unhappy; everybody is a little bit happy."(154)

The regime will control the exploration and exploitation of all nonliving natural nonrenewable resources south of sixty degrees latitude, excluding those found in the deep seabed(155). While any state may become a party to the convention establishing the regime, by doing so it acknowledges the supremacy of the Antarctic Treaty system (i.e decisions made by the Antarctic Treaty consultative parties), and agrees to abide by its component treaties, including in particular, Article IV of the Antarctic Treaty, which freezes the issue of territorial claims(156).

Both the United States and the Soviet Union are assured representation on the two decisionmaking bodies

of the regime. As Antarctic Treaty consultative parties antecedent to the regime, they are automatically members of the policymaking and governing commission(157). By virtue of their maintaining the largest Antarctic programs at the time of the entry into force of the Antarctic Treaty, they are guaranteed membership on the regulatory committee, which is responsible for operational oversight(158). Unlike the Antarctic Treaty system, however, decisionmaking under the minerals regime will be by majority vote(159).

The United Nations and the Question of Antarctica

After the signing of UNCLOS on December 9, 1982(160), the United Nations began debate on what it termed "the question of Antarctica"(161). Discussions were prompted in part by the urgency with which the Antarctic Treaty consultative parties were moving toward agreement on a minerals regime for Antarctica and the Southern Ocean. They were initiated by an address by Malaysian Prime Minister Mahathir Bin Mohamad, in which he asserted that Antarctica, having no indigenous population, was the res of the international community as a whole(162).

Since that time, each session of the General Assembly has been marked by discussions within the security-

related First Committee(163), submission of annually updated reports by the Secretary General on the Antarctica question(164), and annual resolutions, approved by the First Committee and adopted by the General Assembly(165).

The resolutions have addressed three areas of concern to the United Nations, framing them in the form of requests to the Antarctic Treaty consultative parties. One was a general request, in 1985, that the consultative parties provide the United Nations information about Antarctica, so the United Nations could act as a central repository for data about Antarctica(166). The other two resolutions are ongoing and more substantive. One petitions the consultative parties to invite the Secretary General or his representative as an observer to general and special consultative meetings and to impose a moratorium on minerals negotiations until such time as the whole international community of nations can participate(167). The other substantive resolution appeals to the consultative parties to take steps to exclude South Africa from participating in consultative meetings(168).

Status of Activities and Interests in Antarctica

Currently, thirteen nations and one nongovernmental organization, Greenpeace, operate year-round stations and "winter over" personnel on the Antarctic continent(169). Several nations, including the United States, the Soviet Union, Argentina, Australia, Chile, and New Zealand, make extensive use of their military forces in support of their scientific and research missions(170).

The United States has consistently maintained the largest program in Antarctica. It operates three year-round stations: McMurdo (formerly Naval Air Facility, McMurdo until 1961), the logistics center on Ross Island; Amundsen-Scott, at the geographic South Pole; and Palmer, on Anvers Island off the western coast of the Antarctic Peninsula(171). Also operational are three austral summer-only camps: Siple Station, in Ellsworth Land, at the base of the Antarctic Peninsula; Byrd Surface Camp, in Marie Byrd Land; and Marble Point Camp(172).

The entire United States Antarctic Program (USAP) is administered and funded by the National Science Foundation(NSF), an independent government agency, with responsibility for operational management in its Director, Division of Polar Programs(DPP)(173). Logistical support comes from all three military services

of the Department of Defense (DoD), and includes active and reserve support elements and the Military Airlift and Sealift Commands. The Department of Transportation (Coast Guard) also plays an important support role, as does NSF's primary civilian contractor, Antarctic Services Inc. (ANS), a subsidiary of ITT(174). Support from other government agencies is likewise available to NSF on a cost-reimbursable basis(175).

Additional support, in the form of airlift support between Christchurch, New Zealand, and McMurdo Station, is provided by the Royal New Zealand Air Force(176), pursuant to a joint cooperative agreement on operations(177). Air New Zealand, an independent NSF contractor, performs standard maintenance on the seven NSF-owned LC-130 aircraft at Christchurch(178).

All operation and maintenance and personnel costs associated with the 849 military and DoD civilian Antarctica support personnel are borne by NSF(179). However, the military billets making up Naval Support Forces Antarctica (NSFA) and VXE-6 count against DoD personnel end strength(180).

In 1987, 1,590 total personnel manned United States Antarctic stations(181). In Operation Deep Freeze 1987, ninety one military and 142 civilian personnel wintered

over(182). There is significant female participation in USAP. In 1985-86, the program included fifty nine women researchers and forty eight women logistic support personnel(183).

Operational command of DoD military and contract personnel and Coast Guardsmen associated with the USAP rests with Commander, NSFA (CNSFA)(184), currently Captain Dwight D. Fisher, USN(185). Questions of criminal jurisdiction over military personnel and DoD contractors are a matter of CNSFA cognizance; NSF maintains responsibility concerning potential criminal jurisdiction over all other personnel(186).

In Fiscal Year (FY) 1987, the budget for USAP was \$117.1 million(187). Of that amount, only \$12.5 million directly funded scientific research; the rest went for operational support(188). CNSFA was allocated \$75.8 million for military and related support activities(189).

The Soviet Union maintains the second largest Antarctic program. Like the United States, the Soviet Union has maintained continuous year-round presence since the International Geophysical Year. It has seven year-round stations, including one, Vostok, at the geomagnetic South Pole, and six coastal stations strategically situated in different sextants of the

continent(190). Augmenting these stations are four summer-only research facilities(191). The Soviets winter over approximately 300 personnel, and have a summer population of about 425(192).

Air transportation to and from the Soviet Antarctic base station of Molodezhnaya is accomplished with one IL-18 aircraft, and internal air transport is carried out with IL-14 aircraft (DC-3-equivalent) and large helicopters(193). The Soviet staging facility in the southern hemisphere is Maputo, the capital of marxist Mozambique(194).

There are forty one other stations manned by eleven other Antarctic Treaty consultative parties(195). The vast majority of stations occupied by original signatory claimant and historically interested states are confined to the geographic limits of their respective territorial claims or zones of interest(196).

United States Antarctic Policy Objectives

Scholars and other commentators have been highly critical of what they perceive as either an absent or flawed United States policy on Antarctica, particularly regarding the decision not to formally stake a territorial claim(197). They point to apparently

conflicting stated policy objectives over resource utilization(198) and extrapolate them into a general theory of flawed American policy.

The decision to forego establishment of a territorial claim among the preexisting morass of legally questionable claims has worked to the advantage, and not at all to the disadvantage, of the United States. That decision facilitated the swift negotiation and entry into force of the Antarctic Treaty(199), which, with its foundational triad of demilitarization, denuclearization and broad international cooperation, is a universally-recognized model among international agreements(200). Because this was a United States-initiated agreement, its successful operation greatly enhances United States prestige and influence in the international community.

Because the United States does not officially claim specific parcels or wedges of territory, its activities and placement of stations is not restricted. It is free to strategically locate bases of operation based on the widest range of political, economic, military and other contingencies, while claimant states-party to the Antarctic Treaty must largely confine their activities to their zones of interest, or risk further dilution of their already tenuous juridical positions. Both the

United States and the Soviet Union have effectively neutralized the entire range of preexisting territorial claims by their strategic placement of research stations - the United States at the geographic South Pole, at the point of convergence of all sector and continuity-based claims, and the Soviet Union, in each sextant around the Antarctic coastal circumference. In the extremely unlikely event that the Antarctic Treaty system were to break down and territorial claims were revived, activities within these strategically placed stations would seriously undercut the legitimacy of prior claims - particularly ones in which little or no support activity took place.

In an Executive Memorandum dated February 5, 1982, President Reagan reaffirmed the national commitment to the USAP(201). In the memorandum, the President set as national policy objectives the dual goals of continued effective functioning of the Antarctic Treaty system and flexibility and operational reach for the USAP unmatched by any other nation(202).

In 1984, R. Tucker Scully, Director of the State Department's Office of Oceans and Polar Affairs synopsised the compendium of United States national interests in Antarctica as follows: 1) to ensure

compliance with the Antarctic Treaty's mandates that Antarctica be used exclusively for peaceful purposes and not become the scene of international discord and that freedom of scientific research activity and cooperation in sharing data be continued; 2) protection of the Antarctic environment and ecosystems; 3) management of area living resources by the Antarctic Treaty system, and equal access to available resources by United States nationals; 4) where exploitation of nonliving resources is deemed to be environmentally acceptable, nondiscriminatory right of access to the United States; and 5) preservation of bases for assertion of territorial claims by the United States(203).

In addition to its strategic placement of stations, the United States exerts its influence in other ways over parties to the Antarctic Treaty to ensure that they operate within the framework of the treaty. The interdependence of the New Zealand and United States programs on Ross Island is one example. This relationship, the closest and most cordial working relationship among parties to the Antarctic Treaty, has endured and thrived since 1958(204), even in the face of the current political climate in which the mutual defense ANZUS Treaty has been suspended between the two

countries(205).

The United States has hosted and been the guest of virtually every other party's Antarctic research program, including on several occasions, the Soviet Union's(206). In addition, NSFA personnel have carried out numerous humanitarian rescue and assistance missions, including the recent medical air evacuation of a South African technician suffering from acute renal disease while at the isolated South African SANAE station, some 4,200 miles across the continent from McMurdo Station(207). Because of its superior air operational reach in Antarctica, the United States is the only country capable of undertaking such missions(208).

The United States also exerts political leverage on other Antarctic Treaty parties by making selective use of the treaty's broad unilateral right under Article VII to inspect other parties' stations, vessels, aircraft, equipment, and personnel(209). It was the United States that insisted on inclusion of this provision in the Antarctic Treaty(210). The United States has conducted six inspections pursuant to Article VII, in 1964, 1967, 1971, 1975, 1980, and 1983, more than any other party(211). Argentina, Australia, New Zealand, and the United Kingdom have also conducted inspections, some

jointly with the United States(212). No party, including the Soviet Union, has ever objected to the pre-announced inspections, and no violation of the treaty has ever been discovered(213).

The exercise of inspections and other rights under the Antarctic Treaty by the United States and others has had some dampening effect, even if only psychological, on the aspirations of South American claimants Chile and Argentina to reassert sovereignty over their pre-Antarctic Treaty sector claims. Since 1957, Argentina has intermittently strengthened its military air power in the area(214), and since 1977, has maintained up to eight families per year at one or more of its six year-round coastal stations(215). The Chilean plan for consolidating its territorial claim is even more grandiose. It brought permanent settlement of up to one hundred Chilean Air Force and other families to its Teniente Marsh Station on King George Island in 1984, including support facilities such as schools and telephone, radio, and television service(216). Teniente Marsh also has a hotel to accommodate tourists visiting Antarctica from the South American mainland(217). In 1983, the Director of the Chilean Antarctic Institute, speaking on behalf of the Pinochet government, publicly

rejected internationalization of Antarctica and asserted that Chile views the Antarctic Treaty as merely deferring its sovereign territorial rights(218). Both nations make extensive use of military forces to man research facilities, and each has massive air transport capability with Hercules C-130 aircraft(219).

In spite of these symbolic acts, cooperation with each other, between Chile and the Soviet Union, among the co-claimants Chile, Argentina, and the United Kingdom, and otherwise within the Antarctic Treaty framework, has been excellent(220). As an example of the degree of cooperation within the regime, Argentina and the United Kingdom fully participated and cooperated in the special minerals consultative meeting in June, 1982, during the Falklands/Malvinas Islands conflict(221). Also, in 1984, the United Kingdom transferred its station on Adelaide Island to Chile(222).

The most important way that the United States exerts its influence in Antarctica is through the presence of its 849-strong military support force, which gives it the flexibility and superior air operational reach that ensures United States preeminence on the continent. Five of the six United States stations, including the strategically located South Pole Station, have airfields

to accommodate landing by the ski-equipped LC-130 aircraft, and all are helicopter landing-capable(223). The use of ski-equipped aircraft, for real-life rescue missions like the air evacuation of the South African technician from SANAE (a station without a runway)(224), combined with the fueling capabilities of United States stations very remote from McMurdo, demonstrate that NSF can project men and equipment onto any part of the continent with little advance notice.

In addition to search and rescue missions, VXE-6 is tasked to conduct aerial photographic mapping services, reconnaissance support for the scientific research program, and other transportation missions throughout the continent and around the world(225). Additional air operational support for the USAP comes from the Royal New Zealand Air Force, which regularly flies United States personnel and equipment in C-130s between Christchurch and McMurdo(226), and from the United States Air Force's Military Airlift Command (MAC), which provides a C-141 on-site for two months during the austral summer season(227). MAC also conducts a mid-winter air supply drop to McMurdo and South Pole Station as an Air Force training exercise, for which NSF is not required to reimburse DoD(228).

To illustrate the massive extent of United States Antarctic air operations, during Operation Deep Freeze 1987, fixed and rotary wing aircraft belonging to VXE-6 logged 4,900 flight hours, and transported 8.2 million pounds of equipment(229). MAC and the Royal New Zealand Air Force together moved an additional 1.4 million pounds of cargo(230).

So, while the Antarctic Treaty prohibits military operations(231), United States military forces have taken advantage of invaluable training opportunities in support of NSF's scientific research program. Much has been learned about cold weather, high altitude operations, as well as the psychological aspects of long-term isolation in such an environment. The conduct of real-life air operations under adverse weather conditions has benefitted both Navy and Air Force pilots. In Operation Deep Freeze 1988, the 109th Tactical Air Group, Schenectady, New York, the only military unit outside the USAP with ski-equipped C-130 aircraft, is supporting NSF activities and gaining valuable training under Antarctic conditions(232). In addition, information learned about other consultative parties' military forces from joint operations, observations and reconnaissance, inspections under the Antarctic Treaty, and from other opportunities,

provides insight for intelligence and military planning purposes, with worldwide application.

In sum, a strong, well-equipped military support force serves United States Antarctic interests in several key ways. It enhances United States international prestige by providing routine and emergency assistance on a nondiscriminatory basis to the missions of other treaty parties. By its size and the breadth of its support role, it is a means to influence the other Antarctic Treaty parties to abide by the treaty. In return, the military is given unparalleled opportunities for training and unbridled observation of allied and rival military forces.

CURRENT ISSUES WITH MILITARY IMPLICATIONS

Domestic Policy Issues

How National Policy is Established

A state's national interest in the form of a national policy objective reflects political, legal, strategic, military, economic, scientific, and security considerations(233). Regarding Antarctica and the Southern Ocean, the interplay of policy factors is complicated by the fact that the right of the United

States (and at least nine other nations) to assert a claim of territorial sovereignty over resources-rich land and sea space, is sublimated in favor of a delicate international regime under which provincial short- and mid-term national interests are subsumed to ensure long-term international harmony and shared, nondiscriminatory right of access to the area and its resources.

For the United States, Antarctic policy is set by the interagency Antarctic Policy Group (APG), which was established in 1965 by President Johnson on advice of then Acting Secretary of State George Ball(234). The APG is composed of the Secretary of State, who chairs the group, the Secretary of Defense, and the Director of the NSF(235). Attendance by members of other federal agencies with significant interest in the USAP is on an ad-hoc basis. Responsibilities are divided roughly as follows: State formulates overall United States Antarctic policy, NSF manages and funds the entire USAP and designates the senior United States representative in Antarctica, and DoD plans and executes logistical support for the USAP(236). All three members of the APG delegate representation at APG meetings, State to Assistant Secretary for Oceans and International Environmental and

Scientific Affairs, DoD to Assistant Secretary of Defense (International Security Policy)(ASD(ISP)), and NSF to the Assistant Director for Geosciences(237).

The APG does not meet often, usually only annually to review the USAP's plan of operation. At the staff level, the working arm of the APG is the interagency Antarctic Committee(238).

Dimensions of Domestic Problem Areas

In practice, the domestic decisionmaking mechanism has been plagued with problems. Until recently, there was a too-frequent turnover of key State Department personnel, and United States policy was often set by DPP rather than by the State Department(239). Interagency squabbles pose another serious problem. For years, NSF, the agency best suited to do so, has resisted taking on the mission of compiling data on Antarctic continental and offshore nonliving resources(240). The State Department acknowledges that the problem of cooperation on the part of NSF beyond the bounds of "pure science" persists(241).

As for DoD, Auburn observed that the Navy only unwillingly supports the USAP under orders(242). He cites the perceived lack of a military mission and a perception by Navy officers that a tour in Antarctica

will make them less competitive for promotions than their contemporaries as detracting from morale(243).

While Auburn's observations about the Navy's role are not completely accurate, there are significant management and morale problem areas that could easily be rectified. For example, while the Secretary of the Navy is the DoD executive agent for logistic support of the USAP(244), with the Assistant Secretary of the Navy (Research, Engineering and Systems) its coordinator for USAP(245) and the Oceanographer of the Navy its executive agent for staffing(246), it is ASD(ISP) and not the Navy which represents DoD on the APG. A staff person from the office of ASD(ISP), and not a Navy officer, represents DoD on the important working Antarctic Committee(247). Hence, the Navy's input to DoD Antarctic policy is indirect, at best.

The most significant problem areas involve the interagency relationship between the Navy and NSF. As funder of the USAP, NSF unilaterally dictates, often without Navy input, what support elements will be used to carry out the program, a role clearly beyond NSF competence. For example, in advance of Operation Deep Freeze 1988, NSF unilaterally elected to fund only one Coast Guard icebreaker, instead of the traditional two,

prompting the Navy to request that ASD(ISP) raise the issue on behalf of DoD at the next APG meeting(248). The Navy and Coast Guard also sent a joint letter of protest to NSF, requesting that it reverse its decision(249).

Another Navy concern is the relative ease by which NSF, itself not always a team player in cooperating with United States Antarctic policy objectives, forum shops the Navy and DoD chains of command to obtain approval for its missions(250). For example, in 1987, NSF bypassed CNSFA, Commander, 3d Fleet, CINCPACFLT, CNO (OP-006), and ASN(RE&S), and went directly to the Secretary of the Navy to request diversion of a VXE-6 LC-130 from Antarctica to Greenland for an aerial radar survey mission(251).

The most acute rift between DoD and NSF concerns responsibility for safety and security in the area of operations. The Director, NSF interprets the 1985 Memorandum of Understanding (MOU) between NSF and DoD regarding operational and logistic support for the USAP(252) as vesting sole responsibility for safety in NSF(253). This interpretation is bitterly opposed by the Navy, since in practice, CNSFA has traditionally been responsible for safety in Antarctica(254). In late 1987, NSF established a USAP Safety Review Panel, consisting of seven members, of which the only two fixed members are

NSF officials(255). Other panel members will come from DoD, other federal agencies, and the private sector(256). CNSFA has one representative on the panel. The panel is charged to review safety in the USAP and make nonbinding recommendations to the Director, DPP(257).

The safety issue is another example of how NSF has asserted authority in areas in which it lacks competence. NSF apparently interprets President Reagan's 1982 directive(258) as meaning that, as funder and general manager of the USAP, it must shoulder sole responsibility for all aspects of the program, even in areas such as manning, safety, and security, traditionally areas of military competence in Antarctica.

The issue of safety in the USAP is one that has grown significantly and will continue to expand as a minerals regime takes effect. Increasingly, the concept of safety will come to mean security. In addition to the growing official contingent in the USAP - 1,590 personnel in 1986-87(259), tourism and private expeditions, deemed legitimate peaceful activities under the Antarctic Treaty(260), are increasing at a staggering rate. While it is United States policy not to offer assistance to private expeditions, the Navy has, consistent with its international law and humanitarian responsibilities.

rendered emergency assistance with increasing frequency in the recent past(261). In 1986, over 1,000 tourists came to Palmer Station(262), and many also visited McMurdo and other stations. As the scope of activities in Antarctica increases in the future, these personnel will pose a security threat to interests such as protection of proprietary data of prospectors licensed under the minerals regime(263) and general safety and security of official personnel working at stations.

Activities of Greenpeace may also pose a security risk to United State official personnel and property in Antarctica. Greenpeace occupies a camp at Cape Evans on Ross Island, about twenty kilometers from McMurdo Station(264). In February, 1987, members of the Greenpeace Antarctic expedition demonstrated in front of McMurdo to have Antarctic declared a world park(265). Greenpeace is adamantly opposed to minerals exploitation in Antarctica; therefore, it can reasonably be assumed that its protest activities will increase as activities of the minerals regime begin.

Although its demonstrations are peaceful in and of themselves, reaction to its activities in the past, by France, the Soviet Union, and others, has often been violent. Greenpeace has voiced its opposition to

construction by the French of a wheeled airstrip near its Dumont d'Urville base in Terre Adelie, Antarctica(266). French resentment of Greenpeace, in turn, was recently manifested at the sixth annual CCAMLR meeting in Hobart, Tasmania, in October, 1987, when France, alone in its opposition among CCAMLR treaty parties, blocked participation by the environmentalist Antarctic and Southern Oceans Coalition, of which Greenpeace is an active member(267). Although construction on the French airstrip at Dumont d'Urville has been halted by domestic environmental and fiscal concerns, it is expected to be resumed in the near future(268). Also of potential concern to the United States is Greenpeace reaction in the unlikely event that the United States makes the political decision to withdraw its staging facilities from Christchurch, New Zealand, and exercise the contingency plan to build a permanent runway at Marble Point Camp(269).

A growing internal safety and security threat stems from NSF contractors and other civilian employees and researchers. With increasing frequency, these personnel are disregarding safety and security measures established by military authorities. For example, during Operation Deepfreeze 1986, two ANS employees disregarded posted

Navy regulations at McMurdo regarding safe transit routes, and fell into a crevasse and were killed(270). In 1988, NSF is wintering over eighty construction workers to upgrade berthing facilities at McMurdo, and reportedly may have introduced them into Antarctica without the full pre-deployment psychological screening required by Naval regulations(271).

These factors combine to heighten safety and security risks for United States interests in Antarctica, and hasten the arrival of heretofore unknown serious criminal activity on or near United States stations. How, then, will criminal jurisdiction be exercised?

The Antarctic Treaty provides for exclusive national civil and criminal jurisdiction over scientific personnel or their staffs and designated observers that conduct inspections pursuant to the Antarctic Treaty(272). As for all other personnel, the treaty leaves the issue of jurisdiction open to negotiation between affected parties(273). For the United States, there was, until 1984, a jurisdictional void for all nationals except military personnel, who are subject to universal criminal and administrative federal jurisdiction pursuant to the Uniform Code of Military Justice(274). In 1984, Congress implicitly added Antarctica to the special maritime and

territorial jurisdiction of the United States, when it included within such jurisdiction "any place outside the jurisdiction of any nation with respect to an offense by or against a national of the United States,"(275) in effect, taking jurisdiction over enumerated major felonies committed by United States nationals or by foreign nationals against United States nationals in Antarctica(276). This provision arguably also applies to crimes committed on Antarctic ice formations, although federal courts have already applied the special maritime and territorial jurisdiction to polar ice formations since 1972(277).

The United States has joined numerous other Antarctic Treaty consultative parties in extending its criminal jurisdiction to activities in Antarctica. Argentina, Australia, Chile, the Federal Republic of Germany, France, the German Democratic Republic, India, Japan, Norway, the Soviet Union, the United Kingdom, and South Africa all have either specifically enacted legislation governing the exercise of criminal jurisdiction in Antarctica or explicitly or implicitly apply their domestic criminal legislation to Antarctica(278). Still unresolved is the question of primary right of jurisdiction in the event that two or more states desire

to exercise criminal jurisdiction in a given case.

The final domestic area of concern to be addressed is the USAP's growing reliance on foreign-flag vessels to support its science mission. Consistent with his management philosophy, President Reagan, in his 1982 memorandum(279), stressed the need to maximize cost effectiveness in managing the USAP. In furtherance of that objective, he ordered that commercial support and management facilities be utilized where cost-effective, and where, in the opinion of the APG, their use would not be detrimental to the national interest(280).

Many consultative parties have upgraded their research capabilities in recent years, including building or chartering ice-breaking research ships(281). NSF chose to lease for the United States a Canadian-flag research ship, R/V Polar Duke, which has been in operation since 1983 and currently costs \$4 million annually(282). NSF also intends to use an additional \$1 million to lease an ice-breaking research ship, which, in all probability, will also be a foreign-flag vessel(283). These decisions, combined with the decision to decrease the Coast Guard's icebreaker support role, run counter to the President's primary policy objective of maintaining an active and influential United States presence in

Antarctica(284). Where virtually all United States ocean research in the Antarctic takes place on foreign-flag vessels, not only is United States influence and flag-presence diminished, but the activities of the foreign vessels may create new zones of interest in Antarctica and the Southern Ocean, a prospect disadvantageous to the United States and other Antarctic Treaty parties.

Recommendations Regarding Domestic Issues

Regarding interagency relationships and policymaking functions, several things should be done by the Navy to enhance its influence. The Secretary of the Navy should recommend to the Secretary of Defense that ASN(RE&S), the DoD logistic coordinator for USAP, and not a staff person from the office of ASD(ISP), represent DoD on the interagency Antarctic Committee. As the person closest to the logistic problem, ASN(RE&S) is best able to voice DoD concerns in this working level forum, such as its perception of required Coast Guard support, security and safety-related issues, and the perceived detrimental effect of decreased flag presence created by the increasing use of foreign-flag charter vessels.

Internally, the Navy must assert self-discipline in

maintaining the integrity of the chain of command. It must not allow NSF to forum shop the chain for favorable decisions regarding Naval support of its missions. Such a practice has had a negative effect on morale. Additionally, the Navy must ensure that it enforces its own regulations, particularly concerning the pre-deployment screening requirements for the ever-increasing contingent of contractor personnel.

Finally, DoD must assert its role as security manager for the USAP. Negotiation with NSF should be undertaken within the Antarctic Committee, the APG, or, if necessary, at the cabinet level, to formally transfer primary safety and security responsibility to DoD, and in particular, to CNSFA. Issues of safety and security fall specifically within the competence and expertise of DoD, not NSF, and management of the safety and security program by military support personnel is in no way repugnant to the Antarctic Treaty. Irrespective of the outcome of such negotiations, CNSFA can rely not only on his currently delineated sphere of responsibility for security services, contraband interdiction, and physical security inspections in the DoD-NSF MOU, but also on his inherent judicially-recognized authority as a military commander(285), to develop and implement security

regulations governing all activities on or close to United States stations in Antarctica.

Finally, because United States law(286) now assumes criminal jurisdiction over foreign nationals(287) in Antarctica, the United States Antarctic Treaty delegation should present a working paper on and formally recommend to the consultative parties a mechanism for resolution of criminal jurisdictional issues before the need for such a mechanism actually arises. The United States should propose a model fashioned somewhat after the North Atlantic Treaty Organization Status of Forces Agreement(NATO SOFA)(288), which places exclusive, concurrent and primary jurisdiction based on factors such as performance of official duty at the time of an act or omission, and the relative degree of injury to nationals, property, or other interests of respective states(289).

An Antarctic jurisdictional model differs from the NATO SOFA, however, in several key respects. While the NATO SOFA primarily involves assertion of jurisdiction over "sending state" military forces located in "receiving states" or host nations(290), the Antarctic model primarily concerns jurisdiction over civilians. In addition, while the NATO SOFA is juridically based upon territorial sovereignty, the Antarctic model is

based on consensus of the Antarctic Treaty parties, disavowing any rights to territorial sovereignty(291).

The following is a suggested model for resolution of criminal jurisdiction issues in Antarctica. To avoid amendment of the Antarctic Treaty, any agreement concerning criminal jurisdiction should leave intact the Article VIII(1)(292) provision providing for exclusive national jurisdiction over contracting parties' scientific personnel, their staffs, and observers. The agreement should also expressly interpret Article VIII(1)(293) to include military personnel supporting scientific missions in Antarctica. For all other personnel, the recommendation should provide for:

(1) exclusive jurisdiction in a party to the Antarctic Treaty for enumerated felony-equivalent offenses punishable only by the laws of the injured state, regardless of the nationality of the offender; [Presumably, few or no offenses would fall into this category.]

(2) concurrent jurisdiction for enumerated felony-equivalent offenses punishable by the laws of two or more Antarctic Treaty parties-state whose interests are adversely affected.

(a) The primary right of jurisdiction, regardless

of the nationality of the offender, is in a state:

(i) over members of its civilian governmental force, government contract employees, and other official personnel (including personnel operating under governmental or educational research grants);

(ii) over offenses arising out of an act or omission in the performance of official duty;

(iii) over offenses solely against the property or security interests of that state;

(iv) over offenses solely against the person or property of scientific personnel and their staff, military support personnel, member of the civilian governmental force, government contract employee or other official personnel of that state.

(b) The primary right of jurisdiction for all other offenders and offenses is in the other injured state. If more than one additional injured state is involved, primary jurisdiction lies in the state of which the offender is a national(294). Residual jurisdiction lies in the remaining injured state(s).

(4) For felony offenses not enumerated in the jurisdictional agreement and for minor (misdemeanor-equivalent) offenses, exclusive jurisdiction lies in the state of which the offender is a national.

International Legal and Political Issues

All of the international legal and political issues regarding the status of Antarctica come within the ambit of the term "accommodation"(295). Accommodation issues, in turn, all fall into one of three categories involving relationships with and within the Antarctic Treaty regime.

Issues of internal accommodation concern relationships between and among parties to the Antarctic Treaty. Among consultative parties, internal accommodation involves the reconciliation of different national interests of original signatory parties and parties which later achieved consultative party status. It also concerns the relative positions of actual and potential territorial claimant states, states with historical interest, and the residuum of consultative parties. Finally, internal accommodation deals with relationships between consultative parties and acceding nonconsultative parties, and relationships between and among acceding nonconsultative parties to the treaty.

Internal accommodation issues to date have been insignificant for several reasons. Of greatest importance, Article IV's(296) indefinite suspension of

territorial claims issues has reduced the need for competition among the parties to the Antarctic Treaty, and encouraged, instead, concerted action. Up to now, no significant activity has taken place in Antarctica that could invite discord, since all activity has been scientific research-oriented. In addition, as a model for demilitarization, denuclearization, and broad international cooperation, and with its primary emphasis on protection of the pristine Antarctic environment and its ecosystems, the Antarctic Treaty regime has been virtually universally lauded by international and nongovernmental organizations, from the United Nations(297) to Greenpeace(298). The unparalleled efficacious management by the Antarctic Treaty parties of a continent and surrounding ocean space has likewise earned the regime broad international respect. The incidental benefit of the resultant rise in international prestige has inured not only to the regime as a whole, but to each member state as well, facilitating continued cooperation. Even in the ongoing minerals regime negotiations, there is significant pressure - collective, external, and self-imposed - among the consultative parties to achieve consensus, and at the same time, maintain a high degree of international respect by

ensuring that environmental protection is a basic consideration of any action to be taken. And even though the Antarctic Treaty is open to review and possible disintegration after 1991(299), the same factors that have heretofore bound the parties to accord will carry equal or greater weight as geopolitical tensions in other regions of the world wax and wane.

Even less significant than internal accommodation issues is the issue of autoaccommodation, the process by which some Antarctic Treaty parties that have previously embraced the concept of the common heritage of mankind(300), through the Group of 77(301) in the United Nations, through signing or ratifying UNCLOS(302), or otherwise, reconcile conflicting aspirations of common heritage and national interest. Through their actions within and without the regime, all thirty seven treaty parties have shown that there is no linkage between common heritage principles and nations' respective positions on Antarctic affairs.

The sphere of accommodation that is most delicate is that of external accommodation, that is, how the Antarctic Treaty regime interacts with external entities - in particular, the United Nations. A number of Antarctic Treaty parties, including the United States,

show too little regard for the potential influence of the United Nations over Antarctic affairs and for the potential benefits to the regime from closer cooperation with the United Nations.

Scholars and commentators have labored incessantly over the past quarter century, to no avail, to label the status of Antarctica based on activities and actions of the Antarctic Treaty regime(303). Whatever label one applies to Antarctica under the Antarctic Treaty regime in theory, in practice, it bears many of the attributes of a United Nations trusteeship(304), albeit de facto.

To complacently infer, as some have done, that the United Nations is impotent in influencing Antarctic affairs is a serious mistake. The effects of recent United Nations interest in Antarctica and the Southern Ocean have been felt within and without the Antarctic Treaty regime.

Within the Antarctic Treaty regime, there is significant sentiment to include the Secretary General as an observer to Antarctic Treaty meetings(305). The regime has tempered its near bunker-mentality somewhat by agreeing to furnish reports of regular consultative meetings to the Secretary General(306), by reversing its prior position on confidentiality of documents(307) and

by acquiescing in the United Nations role as a central depository for information on Antarctica(308). The most recent draft of the minerals regime mandates that the governing commission cooperate with the United Nations and its specialized agencies(309), and implies that the United Nations will have observer status on governing and advisory bodies(310). The minerals regime also sidesteps confrontation with the United Nations by excluding from coverage the deep seabed in its administrative management scheme(311).

The United Nations has also split the otherwise solid(312) Antarctic Treaty regime regarding suspension of South Africa as a consultative party. There has always been internal opposition within the regime to full-scale participation by racist South Africa, evidenced by the fact that some delegations refuse to permit South Africa to host a consultative meeting(313). As the degree of worldwide ostracization of South Africa and of progressive repression by its government have increased over time, a number of acceding and consultative Antarctic Treaty parties have broken ranks to vote in favor of United Nations General Assembly resolutions urging South Africa's suspension from consultative status in the Antarctic Treaty regime(314),

the last international forum in which it has any voice. The willingness of many Antarctic Treaty parties to take action to exclude South Africa from consultative status belies Australian Ambassador Wolcott's assertion in the First Committee discussion on the South Africa resolution that there is no basis under international law for the exclusion of South Africa from Antarctic Treaty consultative status(315).

The Antarctic Treaty regime would do well to find a way to suspend, although not expel, South Africa from consultative status. In terms of immediate interests of the United States, suspension of South Africa from consultative status should help to stabilize the current Antarctic Treaty regime for the next decade and beyond, by eliminating the only contentious issue facing the regime. To make such a decision acceptable to all consultative parties, it should be specified in the suspension order that this is an extraordinary measure, and that suspension from consultative status will have no effect on South Africa's right to operate camps and stations in Antarctica nor otherwise participate as any acceding party to the treaty would. The order should provide for a lifting of the suspension upon fulfillment of preestablished conditions.

There are many reasons why this extraordinary measure should be taken. From a moral standpoint, it is the correct course of action. There is a fundamental inconsistency in asserting that South Africa is entitled to participate in world affairs based on notions of universality, when its government denies basic human rights to the vast majority of its citizenry on the basis of perceived relative racial superiority and inferiority. In addition to the international prestige that will inure to the Antarctic Treaty regime and its individual members by suspending South Africa from consultative status, the action will also have a salutary effect on reducing tensions between the United Nations and the Antarctic Treaty regime.

Under the impending minerals regime, the Antarctic Treaty consultative parties intend to assume quasi-coastal state competency in defining the extent of their "jurisdiction" over Antarctic nonliving resources(316). The South Africa suspension action would go a long way toward dampening opposition within the United Nations to such a proposal, and might even prompt the International Seabed Authority of UNCLOS to declare the Antarctic Treaty's regional management of the Southern Ocean consistent with UNCLOS(317).

If it tempers its fear and distrust of the United Nations, and makes some concessions to it, the Antarctic Treaty regime stands to gain even broader support for its continued exclusive management of Antarctica and the Southern Ocean. Absent the present confrontational environment, there is little fear that the United Nations will try to dismantle an international agreement that has epitomized the highest aspirations of the United Nations Charter(318), and reflected them in a way that only a few internal United Nations bodies have done in practice.

The South African problem threatens the Antarctic Treaty regime internally as well. If there is an issue that has the potential to cause the disintegration of the Antarctic Treaty System, it is the issue of South African participation in decisionmaking within the regime(319). The unparalleled degree of consensus achieved within the Antarctic Treaty regime regarding suspension of territorial claims and the regulation of exploitation of resources has made these items virtual non-issues at this point in time. The South Africa problem, however, is a festering sore not only within the international community in general, but within the Antarctic Treaty regime as well. If the consultative parties do not take action to suspend South Africa from consultative status,

the treaty parties will continue to divide over the issue, and eventually domestic and global pressure on one or more consultative parties will lead to a call for revision of the Antarctic Treaty when allowed after 1991.

CONCLUSION

Although the United States has been criticized for not making a territorial claim in Antarctica and for what has been labeled a lack of consistent national policy on Antarctica, it has managed to orchestrate what is probably the greatest cooperative achievement of mankind, the Antarctic Treaty System. Under no other arrangement on earth do nations as politically and culturally diverse as Chile, Cuba, India, North and South Korea, the Soviet Union, the United States, and thirty other nations fully cooperate in management and decisionmaking, subsuming, in large part, selfish national interest to a greater good. In addition, as the only region on earth that is both demilitarized and denuclearized, Antarctica is a working model for world peace.

As Antarctica is about to yield its vast bounty of nonliving resources to mankind, the United States remains in a leadership role in policymaking. To maintain that position, it must remain committed to preserving and

expanding the current governing treaty regime, and must be flexible enough to solve the domestic and international problems confronting it.

*This thesis is dedicated to the late Bernardo Zuleta, Under Secretary-General, United Nations and Special Representative of the Secretary-General to the Third United Nations Conference on the Law of the Sea. The author gratefully acknowledges the assistance of the following persons in researching this thesis: Amin Abdelsamad, Senior Reference Librarian, United Nations; Christina R. Dewey, Economics Officer, Marine and Polar Minerals Bureau, U.S. Dep't of State; Neal Grandy, Director, Research and Publication, Center for Oceans Law and Policy, University of Virginia School of Law; Daniel C. Lavering, Librarian, The Judge Advocate General's School; Angela Moon, Senior Reference Librarian, U.S. Army Foreign Science and Technology Center; Stewart B. Nelson, Director, Interagency and International Affairs Division, Office of the Oceanographer of the Navy; and David O'Neil, Major, USMC, Instructor and Thesis Advisor, The Judge Advocate General's School.

FOOTNOTES

1. The United Nations refers to issues concerning Antarctica collectively as the "Question of Antarctica." See infra notes 161 and 164 and accompanying text.
2. United Nations Convention on the Law of the Sea,

opened for signature Dec. 10, 1982, U.N. Doc.

A/CONF.62/122. (1982) [hereinafter UNCLOS].

3. See infra text accompanying notes 75, 122-24.

4. For state protestation of a disputed action to be effective, it must include "all necessary and reasonable steps to prosecute the available means of redressing the infringement of its rights." Fisheries Case (U.K. v. Nor.), 1951 I.C.J. 116 (Judgment of Dec. 18, 1951).

There have been no effective acts of protest by states or international organizations against the legitimacy of the Antarctic Treaty System. See supra text accompanying notes 1 and 2. Even in its resolutions on the "Question of Antarctica," the United Nations General Assembly has never challenged the administrative authority of the incumbent Antarctic Treaty System regime. See infra text accompanying notes 166-68. This absence of effective state protest of the status quo may constitute acquiescence or estoppel, thereby legitimizing the current governing system under customary international law. See generally MacGibbon, Some Observations on the Part of Protest in International Law, 30 Brit. Y.B. Int'l L. 297 (1953). Protest by the United Nations General Assembly of the Antarctic Treaty regime's impending minerals regime, however (see infra notes 162 and 167 and

accompanying text), may prevent extension of customary international law to legitimize that activity.

5. NATIONAL SCIENCE FOUNDATION, UNITED STATES ANTARCTIC RESEARCH PROGRAM INFORMATION, No. 2 (Mar. 28, 1985), at 1 [hereinafter NSF 2].

6. World Almanac and Book of Facts 1984 748 (H. Lane ed. 1984). The world's lowest recorded temperature, minus 128.6 degrees Fahrenheit, was at the Soviet Vostok geomagnetic south pole station in 1983.

7. Rand McNally World Atlas 229 (Goode's 15th ed. 1980).

8. NSF 2, supra note 5, at 1.

9. F. Auburn, Antarctic Law and Politics 2 (1982).

10. Id.

11. Schachter, S. & Schuyler, C, The Antarctic Minerals Policy of the United States 1 (Sept., 1984). For an elaboration of this hypothesis, see Craddock, Antarctic Geology and Gondwanaland in Frozen Futures 101 (1973).

12. Schachter, S. & Schuyler, C., supra note 11, at 1.

13. F. Auburn, supra note 9, at 1.

14. Id. at 290.

15. Id.

16. See Antarctic Resources: Report on the Meeting of Experts at the Fridtjof Nansen Institute, reprinted in U.S. Antarctic Policy with Respect to Mineral Exploration

and Exploitation in the Antarctic. Hearings Before the Subcomm. on Foreign Relations, 94th Cong., 1st Sess. 63 (1975); Craddock, Antarctic Geology and Mineral Resources in A Framework for Assessing Environmental Impacts on Possible Antarctic Mineral Development A-7 (D. Elliot ed. 1977).

17. An occurrence refers to the mere presence of a mineral, in contrast to a deposit, which is a potentially commercially exploitable cache. B. Mitchell, Frozen Stakes: The Future of Antarctic Minerals 17 (1983).

18. See supra text accompanying note 11.

19. Mitchell & Kimball, Conflicts Over the Cold Continent, 35 Foreign Policy 124, 129 (1979).

20. NSF 2, supra note 5, at 1.

21. Mitchell & Kimball, supra note 19, at 128; F. Auburn, supra note 9, at 207.

22. Mitchell, The Politics of Antarctica, 22 Environment 12, 13 (1980).

23. See infra notes 124-34 and accompanying text.

24. See infra text accompanying notes 70-91.

25. See infra note 86 and accompanying text.

26. Jessup, Sovereignty in Antarctica, 41 Am. J. Int'l L. 117, 118 (1947).

27. NSF 2, supra note 5, at 1.

28. Id.; F. Auburn, supra note 9, at 2.
29. Luard, Who Owns the Antarctic?, Foreign Affairs 1175, 1182-83 (Summer 1984).
30. Joyner, The Exclusive Economic Zone and Antarctica, 21 V. L. Rev. 691, 705-07nn. 83-89 (1981). A political map of Antarctica appears at app. A, fig. 1.
31. Mitchell & Kimball, supra note 19, at 125.
32. Triggs, The Antarctic Treaty Regime: A Workable Compromise or a "Purgatory of Ambiguity"?, 17 Case W. Res. J. Int'l L. 195, 200n. 21 (1985).
33. Taubenfeld, A Treaty for Antarctic, 1960-61 Int'l Conciliation 251.
34. Bernhardt, Sovereignty in Antarctica, 5 Cal. W. Int'l L. J. 297, 317 (1975).
35. See Island of Palmas Case (U.S. v. Neth.), 2 R. Int'l Arb. Awards 829, 846 (Perm. Ct. Arb. 1928), reprinted in 22 Am. J. Int'l L. 867 (1928). Effective occupation consists of two elements: intent to exercise sovereignty and the actual exercise of sovereignty. J. Brierly, The Law of Nations 92 (1928). In the case of uninhabited land, the requirements for effective occupation may be relaxed to the point that mere effective administration of the territory may suffice. Bernhardt, supra note 34, at 332. The three case cited by scholars supporting

relaxation of the occupation requirement for uninhabited lands are Island of Palmas Case, supra; Clipperton Island Case (Fr. v. Mex.), 2 R. Int'l Arb. Awards 1105 (1932), reprinted in 26 Am. J. Int'l L. 390 (1932); and Legal Status of Eastern Greenland (Nor. v. Den.), 1933 P.C.I.J. (ser. A/B) No. 53 (Apr. 5). See Bernhardt, supra note 34, at 324; F. Auburn, supra note 9, at 12. No tribunal or other international organization has ever adjudged the existence or extent of claimants' territorial sovereignty, if any, in Antarctica.

36. Archdale, Claims to the Antarctic, 1958 Y.B. World Aff. 242.

37. Continuity refers to the inward extension from coastal settlements of spheres of influence. See J. Kish, The Law of International Spaces 53, 73-74 (1973).

38. Contiguity refers to extension of sovereignty from coastal settlements to surrounding islands. Its application to Antarctica is not recognized under international law, in part because of the great geographic distance separating South America from Antarctica (see supra text accompanying note 13), and in part because such application would entail extending sovereignty from a continent to another continent. Bernhardt, supra note 34, at 339-342.

39. The sector principle was originally applied to Arctic Ocean claims by Canada and the USSR. As applied to Antarctica, it would create wedges of sovereign territory extending longitudinally from claimants' mainland to the South Pole, or from claimed Antarctic coastal territory to the South Pole. Joyner, supra note 30, at 708n. 95. The sector principle is not a recognized customary international law principle in Antarctica. Bernhardt, supra note 34, at 332, 338.

40. Uti possidetis juris refers to the rights inherited by South American claimant nations, Chile and Argentina, from Spain, in this case, inheritance of Antarctica pursuant to the Bull of Pope Alexander the 7th, 1493, in which he divided the world between Spain and Portugal. Conforti, Territorial Claims in Antarctica: A Modern Way to Deal with an Old Problem, 19 Cornell Int'l L. J. 249, 255 (1986). Opinio juris is that, while this is a valid regional customary international law principle, its extension to Antarctica and the Southern Ocean is just the sector principle in another form, making its validity equally suspect. See F. Auburn, supra note 9, at 49-50.

41. Infra note 75.

42. Hayashi, The Antarctica Question in the United Nations, 19 Cornell Int'l L. J. 275, 279 (1985).

43. D. O'Connell, *International Law* 415 (2d ed. 1970).
The Antarctic Treaty consultative parties intend to exercise both legislative and enforcement jurisdiction over Antarctic continental and shelf mineral activities. See infra note 155 and accompanying text. For a discussion on the distinction between the two classifications of jurisdiction, see Wolfrum, Compliance with a Minerals Resources Regime 181, in *Antarctic Challenges II* (1985).
44. For an elaboration of activities conducted during the International Geophysical Year, see Rutford, Summary of Science in Antarctica Prior to and Including the International Geophysical Year 87-101, in *Antarctic Treaty System, An Assessment* (1986).
45. Luard, supra note 29, at 1173.
46. F. Auburn, supra note 9, at 61.
47. Id. at 62.
48. See supra note 28 and accompanying text.
49. 1 C. Hyde, *International Law* 353 (2d ed. 1945).
50. Id.
51. NSF 2, supra note 5, at 1.
52. F. Auburn, supra note 9, at 62.
53. Id.
54. Id.

55. Id.
56. Id.
57. Id.
58. P. Quigg, A Pole Apart: The Emerging Issue of Antarctica 127 (1983).
59. F. Auburn, supra note 9, at 62.
60. Id.
61. NSF 2, supra note 5, at 1.
62. Id.
63. Parriott, Territorial Claims in Antarctica: Will the United States Be Left Out in the Cold?, Stan. J. Int'l L. 67, 102 (Spring 1986).
64. Id.
65. See supra note 44.
66. History, Naval Support Force Antarctica Operations 1 (1986) [hereinafter NSFA].
67. Id.
68. It would be a case of first impression if Antarctica were internationally recognized as res or terra communis. Joyner, supra note 30, at 710n. 105. Even if it were so recognized, it remains unanswered whether nations may freely appropriate its resources or whether they are free from national appropriation, i.e. the common heritage of mankind. For an elaboration of the

respective positions, see infra notes 136-56 and 292-94 and accompanying text.

69. International legal scholars are divided over the issue of sovereignty over polar ice formations. See, e.g., D. Pharand, *The Law of the Sea of the Arctic* 184, 188 (1973); Bernhardt, supra note 34, at 298; F. Auburn, supra note 9, at 32-38. Together, permanent ice shelves and austral summer-mobile pack ice nearly double the size of the Antarctic continent in winter, a fact of profound significance in the establishment of baselines for exclusive economic zones under UNCLOS, supra note 2, arts. 5 (normal baseline), 57 (breadth of the exclusive economic zone). Parriott, supra note 63, at 71; Joyner, supra note 30, at 711.

70. The International Geophysical Year was held from July, 1957 through December, 1958. See Rutford, supra note 44, at 87.

71. Joyner & Theis, The United States and Antarctica: Rethinking the Interplay of Law and Interests, 20 Cornell Int'l L. J. 65, 71n. 31 (1987).

72. Id.

73. NSFA, supra note 66, at 3.

74. Luard, supra note 29, at 1173.

75. Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794,

T.I.A.S. No. 4780, 402 U.N.T.S. 71 [hereinafter Antarctic Treaty]. A copy of the treaty is at app. E.

76. Id.

77. Id.

78. The treaty region includes "the area south of sixty degrees south latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any other way affect the rights, or exercise of rights, of any State under international law with regard to the high seas within that area." Id., art. III.

79. Id., art. I.

80. Id., art. II.

81. Id., art. III.

82. Id., art. VII.

83. Id., art. I.

84. Id., art. V.

85. Id.

86. This article states in pertinent part, "No acts or activities taking place while this Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica." Id., app. IV.

87. Polar Publications, Handbook of the Antarctic Treaty System xvii-xxii (5th ed. Feb. 1987) [hereinafter

Handbook].

88. Id.

89. Id.

90. Antarctic Treaty, supra note 75, art. IX.

91. Handbook, supra note 87, at A1-2.

92. Office of Oceans and Polar Affairs, Summary, The Fourteenth Antarctic Treaty Consultative Meeting, Rio de Janeiro, Brazil, October 5-16, 1987 1 (U.S. Dep't of State, Dec. 1987) [hereinafter OPA].

93. Id. at 3.

94. Id. at 8.

95. Id. at 5, 12.

96. P. Quigg, supra note 58, at 158.

97. Joyner & Theis, supra note 71, at 72.

98. OPA, supra note 92, at 1.

99. See infra notes 122-24 and accompanying text.

100. See infra text accompanying notes 155-59.

101. See infra text accompanying notes 160-68.

102. The following international organizations, among others, have considered issues concerning Antarctica: Conference of Heads of State or Government of Non-Aligned Countries, Council of Ministers of the League of Arab States, Fifth Islamic Summit Conference of the Organization of the Islamic Conference, and Organization

- of African Unity. See G. A. Res. 46, U.N. Doc. A/RES/42/46 (1988), to be published in 42 U.N. GAOR Supp. (No. 49) [hereinafter 1988 Res.].
103. For example, Taiwan conducts experimental fishing in the Southern Ocean and Saudi Arabia provides financial support for ongoing iceberg towing studies. NATIONAL SCIENCE FOUNDATION, UNITED STATES ANTARCTIC RESEARCH PROGRAM INFORMATION, No. 16 (Sept. 30, 1986), at 10 [hereinafter NSF 16].
104. See infra notes 128, 169 and accompanying text. For an example of Greenpeace's commitment to environmental issues in Antarctica see GREENPEACE International, THE FUTURE OF THE ANTARCTIC: Background for a UN Debate (1983) [hereinafter GREENPEACE].
105. See infra notes 260-62 and accompanying text.
106. OPA, supra note 92, at 5.
107. Id.
108. Id.
109. Id. at 5-6.
110. Antarctic Treaty, supra note 75, art. IX.
111. OPA, supra note 92, at 1.
112. Joyner, The Antarctic Minerals Negotiating Process, 81 Am. J. Int'l L. 888, 889-90 (1987) (listing the first six members).

113. OPA, supra note 92, at 1 (naming the two latest consultative states).

114. See NSF 16, supra note 103, at 1, 3, 5-6, 9; Mitchell & Kimball, supra note 19, at 132. Cf. Borgese, The New International Economic Order and the Law of the Sea, 14 San Diego L. Rev. 585 (1977).

115. See Extract from report of XIIth ATCM, Handbook, supra note 87, at 6107.

116. U.S. Dep't of State, Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 1986, at 211 (1986); OPA, supra note 90, at 1.

117. Interview with Christina Dewey, Economics Officer, U.S. Dep't of State, in Washington, D.C. (Feb. 19, 1988) [hereinafter Dewey Interview].

118. See infra note 157 and accompanying text.

119. See Antarctic Treaty, supra note 75, art. IX.

120. OPA, supra note 92, at 1.

121. Id.

122. Agreed Measures for the Conservation of Antarctic Flora and Fauna, June 2-13, 1964, 17 U.S.T. 996, T.I.A.S. No. 6058, modified in 24 U.S.T. 1802, T.I.A.S. No. 7692 (1973).

123. Convention for the Conservation of Antarctic Seals,

June 1, 1972, 29 U.S.T. 441, T.I.A.S. No. 8826.

124. Convention on the Conservation of Antarctic Marine Living Resources, May 20, 1980, 80 Stat. 271, T.I.A.S. No. 10240 (entered into force Apr. 7, 1982) [hereinafter CCAMLR].

125. Id., art. I. The Antarctic Convergence is the point where circumpolar Antarctic cold water meets and falls beneath warmer northern ocean water currents.

GREENPEACE, supra note 104, at 5. The resultant temperature disparity adversely affects plankton, the krill's primary food source. See Holm-Hansen, El-Sayed, Franceschini and Cuhel, Primary Production and the Factors Controlling Phytoplankton Growth in the Southern Ocean, in Adaptions Within the Antarctic Ecosystems: Proceedings of the Third S.C.A.R. Symposium on Antarctic Biology XV (G. Llano ed. 1977).

126. The marine resources regulated by CCAMLR include: "fin fish, molluscs, crustaceans and all other species of living organisms, including birds, found south of the Antarctic Convergence." CCAMLR, supra note 124, art. I.

127. See infra app. A, fig. 1 and accompanying text. Note that some of the islands, over which national sovereignty is not disputed, potentially have exclusive economic zones that encroach upon the jurisdiction of the

proposed minerals regime (see infra note 155 and accompanying text). See generally Joyner, supra note 30, at 716-17.

128. See GREENPEACE, supra note 104, at 7, 9-11.

129. Mitchell, The Southern Ocean in the 1980s, in 3 Ocean Yearbook 371 (E. Borghese & N. Ginsberg ed. 1982).

130. Id. at 369-70.

131. Id. at 370.

132. CCAMLR, supra note 124, art. V.

133. Id., art. IV.

134. Id., art. VII.

135. Article IX reads in pertinent part, "Representatives of the Contracting Parties...shall meet...for the purpose of...formulating...measures regarding:-...(f) preservation and conservation of living resources in Antarctica." Antarctic Treaty, supra, note 75, art. IX.

136. In congressional hearings in 1975, Ass't Sec'y of State Ray asserted that:

Throughout the history of our involvement in Antarctica, U.S. policy has consistently held that...U.S. rights and interests must be protected [including]...[f]ree access to develop natural resources; and establish uniform

and nonpreferential rules applicable to all countries and nations for any possible development of resources in the future.

U.S. Antarctic Policy Hearing Before the Subcomm. on Oceans and International Environment of the Senate Comm. on Foreign Relations, 94th Cong., 1st Sess. 30 (1975) (statement of Dixy Lee Ray, Ass't Sec'y of State). See also Schachter, S. & Schuyler, C, supra note 11, at 30-35.

137. See Schachter, S. & Schuyler, C, supra note 11, at 7-8.

138. Mitchell, supra, note 129, at 379-80.

139. See Handbook, supra note 87, at 1801.

140. Recommendation VII-6 (Antarctic Resources - Effects of Minerals Exploration), Seventh Antarctic Consultative Treaty Consultative Party Meeting [ATCM], Wellington, New Zealand, reprinted in Handbook, supra note 87, at 1803.

141. Recommendation VIII-14 (Antarctic Resources - Effects of Minerals Exploration), Eighth ATCM, Oslo, Norway; Extract from report of VIIIth ATCM, reprinted in Handbook. supra note 87, at 1803-05.

142. Id. at 1804-05.

143. See Handbook, supra note 87, F1-16.

144. Recommendation IX-1 (Antarctic Mineral Resources),

para. 4, Ninth ATCM, London, England (1977), reprinted in Handbook, supra note 87, at 1607.

145. Id., para. 8.

146. Recommendation X-1 (Antarctic Mineral Resources), para. 4(iii), Tenth ATCM, Washington, D.C. (1979), reprinted in Handbook, supra note 87, at 1610.

147. Id., para. 4(iii)(b).

148. See Recommendation XI-1 (Antarctic Mineral Resources), para. 2, Eleventh ATCM, Buenos Aires, Argentina (1981), reprinted in Handbook, supra note 87, at 1612.

149. See id., para. 5, 6 which read:

5. The regime should be based on the following principles:

(a) the Consultative Parties should continue to play an active and responsible role in dealing with the question of Antarctic mineral resources;

(b) the Antarctic Treaty must be maintained in its entirety;

(c) protection of the unique Antarctic environment and of its dependent ecosystems should be a basic consideration;

(d) the Consultative Parties, in dealing with

the question of mineral resources in Antarctica, should not prejudice the interests of all mankind in Antarctica;

(e) the provisions of Article IV of the Antarctic Treaty should not be affected by the regime. It should ensure that the principles embodied in Article IV are safeguarded in application to the area covered by the Antarctic Treaty.

6. Any agreement that may be reached on a regime for mineral exploration and exploitation in Antarctica elaborated by the Consultative Parties should be acceptable and be without prejudice to those States which have previously rights of or claims to territorial sovereignty in Antarctica as well as to those States which neither recognize such rights of or claims to territorial sovereignty in Antarctica nor, under the provisions of the Antarctic Treaty, assert such rights or claims.

150. Dewey Interview, supra note 117.

151. The latest published report is Antarctic Minerals Resources, Chairman's Informal Personal Report: MR/17 BEV IV (Nov., 1987) [hereinafter Beeby IV].

152. For an elaboration on the mechanism of the regime, see R. Scully, The Antarctic Mineral Resource Negotiations: A Report 15-45 (Aug., 1986).

153. See Joyner, supra note 112, at 898-901.

154. Dewey Interview, supra note 117.

155. Beeby IV, supra note 151, art. 5(2).

156. Id., art. 11.

157. Id., art. 19(2)(a).

158. Id., art. 29(2)(b).

159. Decisions of the commission of "matters of substance" [undefined] will be by two-thirds majority vote. Id., art. 23(1). All other commission decisions will be by simple majority vote. Id., art. 23(2).

Decisions of the regulatory committee will require a simple majority vote. Id., art. 32. For decisions regarding presentation or approval of a management scheme, that majority must include parties that are claim territorial sovereignty and parties applying for exploratory permits. Id., art. 29(2)(a), 29(5)(b), 44(3), 46(1).

160. See UNCLOS, supra note 2.

161. See generally Hayashi, supra note 42, at 275-79, 286-89.

162. See 37 U.N. GACR (10th plen. mtg.) at 17, U.N. Doc.

A/37/PV.10 (1982).

163. See Hayashi, supra note 42, at 277-79.

164. See id.; International Institute for Environment and Development, Report on Antarctica 1-3 (July, 1987). The latest report is The Question of Antarctica: Report of the Secretary General, 42 U.N. GAOR (Agenda Item 70), U.N. Doc. A/42/586 (1987) [hereinafter Report].

165. See Hayashi, supra note 42, at 279. For the latest resolution, see 1988 Res., supra note 102 and accompanying text.

166. G. A. Res. 88A, 41 U.N. GAOR Supp. (No. 53) at 99-100, U.N. Doc. A/41/88A (1986).

167. See 1988 Res., supra note 102, sec. B.

168. See id., sec. A.

169. S. Nelson, Narrative for the Briefing on U.S. Navy Role in U.S. Antarctic Program 8A (Office of the Oceanographer of the Navy, Dec. 17, 1987) [hereinafter Narrative].

170. Id.

171. S. Nelson, Briefing on U.S. Navy Role in U.S. Antarctic Program 9 (Office of the Oceanographer of the Navy, 1987) [hereinafter Briefing].

172. Id.

173. E. Bloch, United States Antarctic Program Safety

Review Panel Charter 1 (Aug., 1987) [hereinafter Safety Panel].

174. R. Reagan, Memorandum, Subject: United States Antarctic Policy and Programs 2 (Feb. 5, 1982) [hereinafter Memo].

175. Narrative, *supra* note 169, at 11A, 16A.

176. *Id.* at 19A.

177. Agreement on Operations in Antarctica, Dec. 24, 1958, United States-New Zealand, 9 U.S.T. 1502, T.I.A.S. 4151, renewed indefinitely, Oct. 18, 1960, 11 U.S.T. 2205, T.I.A.S. No. 4591 [hereinafter US-NZ].

178. Narrative, supra note 169, at 16A.

179. Memo, supra note 174, at 1.

180. Narrative, supra note 169, at 17A.

181. Briefing, supra note 171, at 9.

182. *Id.*

183. NSF 16, supra note 103, at Attachment A-2.

184. Narrative, supra note 169, at 11A.

185. Biography, Captain Dwight D. Fisher, USN (1986).

186. Memorandum of Agreement: Department of Defense and National Science Foundation, Title: Operational and Logistic Support for the U.S. Antarctic Program § D.1.2.e. (Oct. 3, 1985) [hereinafter MOU]. According to NSF, "[t]he exercise of criminal jurisdiction over any

civilian must be consistent with Department of Justice guidance applicable to Antarctica." Id. Such guidance, however, is nonexistent. Telephone interview with Judy Olingy, Trial Attorney, General Litigation Division, Department of Justice (Jan. 29, 1988).

187. Briefing, supra note 171, at 12.

188. Id.

189. Narrative, supra note 169, at 8A.

190. NSF 16, supra note 103, at 11.

191. Id.

192. Id.

193. Id.

194. Id.

195. Id. at 2-13.

196. See infra app. A, fig. 2.

197. See, e.g., Parriott, supra note 83, at 101; F. Auburn, supra note 9, at 75-78.

198. See, e.g., Schachter, S. & Schuyler, C., supra note 11, at 37-38, in which the authors illustrate a 1975 rift in the executive department between the National Security Council, which urged a formal moratorium on exploration and exploitation of Antarctic minerals on military and security grounds, and the Departments of the Interior, Treasury, and Energy, which favored reservation by the

United States of the unilateral right to exploit minerals, resulting in Congress' refusal to enact legislation enjoining United States corporations from Antarctic minerals exploration and exploitation.

199. Joyner & Theis, supra note 71, at 76.

200. See infra notes 297-98 and accompanying text.

201. Memo, supra note 174.

202. Id. at 1-2.

203. See Parriott, supra note 63, at 104, citing Antarctica: Hearing Before the Subcomm. on Science, Technology and Space of the Senate Comm. on Commerce, Science and Transp., 98th Cong., 2d Sess. 8 (1984) (statement of R. Tucker Scully).

204. See US-NZ, supra note 177; F. Auburn, supra note 9, at 67-71.

205. Security Treaty Between Australia, New Zealand, and the United States of America, Sept. 1, 1951, 3 U.S.T. 3420, T.I.A.S. No. 2493, suspended between New Zealand and the United States, Sept. 17, 1986 (classified joint communique of Aug. 11, 1986, on file at U.S. Dep't of State).

206. See NSF 16, supra note 103, at 1-13.

207. National Science Foundation News, Aircraft Flies Across Antarctica in Medical Evacuation 1-2 (Nov. 4,

1987) [hereinafter News]. In 1985, the Navy also rescued a burn victim at Australia's Davis Station. The victim died en route to McMurdo. Narrative, supra note 169, at 22C.

208. See infra text accompanying notes 223-24.

209. Antarctic Treaty, supra note 75, art. VII. This article also requires states party to give notice to all other parties of "any military personnel or equipment intended to be introduced by it into Antarctica." Id., art. VII(5)(c). All minerals activities in Antarctica will be subject to similar inspection by Antarctic Treaty article VII observers. Beeby IV, supra note 151, art. 13.

210. P. Quigg, supra note 58, at 147.

211. Joyner & Theis, supra note 71, at 81.

212. Id.; Interview with Stewart Nelson, Dir., Interagency and International Affairs Div., Office of the Oceanographer of the Navy, in Washington, D.C. (Jan. 27, 1988) [hereinafter Nelson Interview].

213. F. Auburn, supra note 9, at 110. See also Boczek, The Soviet Union and the Antarctic Regime, 78 Am. J. Int'l L. 834, 855 (1984).

214. See Alaimo, Aeropolarctica Geopolitics, 41 Aero-Espacio 18-21 (1981).

215. Stars and Stripes, Nov. 25, 1984, Magazine, at 14.
216. Id.
217. Id.
218. Classified source (U.S. Army Foreign Science and Technology Center, Apr., 1984).
219. NSF 16, supra note 103, at 2, 4.
220. Id.
221. Id. at 2.
222. Id. at 4.
223. Briefing, supra note 171, at 20.
224. See News, supra note 207.
225. Narrative, supra note 169, at 11A.
226. Id. at 19A.
227. Id.
228. Id.
229. Briefing, supra note 171, at 18.
230. Id. at 19.
231. Antarctic Treaty, supra note 75, art. I.
232. National Science Foundation, Division of Polar Programs, Dear Colleague Letter 2 (Apr. 17, 1987) [hereinafter Letter].
233. Joyner & Theis, supra note 71, at 74.
234. Schachter, S. & Schuyler, C., supra note 11, at 27.
235. Id.

236. Id. at 28.
237. Briefing, supra note 171, at 13.
238. Id.
239. Schachter, S. & Schuyler, C., supra note 11, at 29.
240. Id.
241. Dewey Interview, supra note 117.
242. F. Auburn, supra note 9, at 77.
243. Id., n.215, citing U.S. Antarctic Program, Hearings Before the Subcomm. on Science, Research and Technology of the House Comm. on Science and Technology, 96th Cong., 1st Sess. 61 (1979) (statement of Mr. Harkin).
244. Secretary of Defense Memorandum, United States Antarctic Program Logistic Support, Oct. 16, 1971.
245. Secretary of the Navy Instruction 3160.20B (1983).
246. Id.
247. Narrative, supra note 169, at 13A.
248. Id. at 22A.
249. Id. For a study of United States polar icebreaker requirements, see U.S. Dep't of Transportation, U.S. Coast Guard, United States Polar Icebreaker Requirements Study (July, 1984).
250. Narrative, supra note 169, at 16A.
251. Id.
252. MOU, supra note 186.

253. Safety Panel, supra note 173, at 1.
254. Nelson Interview, supra note 212.
255. Safety Panel, supra note 173, at 3.
256. Id. at 2.
257. Id.
258. See Memo, supra note 174, at 1.
259. Briefing, supra note 171, at 9.
260. See Handbook, supra note 87, at 1301-05.
261. Letter, supra note 232, at 3 (citing 1986-87 private expeditions by Ninety Degrees South, Footsteps of Scott, and Greenpeace); Narrative, supra note 169, at 22B (The Navy assisted Footsteps of Scott after their support ship was crushed by ice.). For guidelines on United States support to private expeditions, see Memorandum, Director, Division of Polar Programs, Subject: U.S. Antarctic Program Guidance in Implementing U.S. Policy on Private Expeditions in Antarctica (Oct. 28, 1987)(private concerns must be self-sufficient; assistance will only be rendered to save human life; rescue costs are recoverable by NSF). See also Memorandum, R. LaCount, Senior United States Representative in Antarctica (Nov. 4, 1987)(access to McMurdo and other U.S. stations will be considered on a case-by-case basis).
262. Letter, supra note 232, at 3. The record for

tourist visits to Antarctica was in 1974-75, when 3,750 tourists from seven cruise ships visited the Antarctic Peninsula, Victoria Land, and Ross Island. Handbook, supra note 87, at 1301.

263. Beeby IV, supra note 151, art. 17.

264. Letter, supra note 232, at 4; Supplement to the United Kingdom Antarctic Treaty Exchange of Information Under Article VII(5) for 1986-87, Greenpeace Antarctic Expedition: Environmental Impact Assessment 9 (1987).

265. See AP Photo, Stars and Stripes, Feb. 11, 1987, at 3.

266. See The Antarctica Project and Greenpeace, International, 9 Antarctica Briefing, The French Airstrip - A Breach of Antarctica Treaty Rules? 1-9 (July 30, 1986).

267. Department of State Telegram, Subject: Sixth Annual Meeting of CCAMLR 3 (Nov. 13, 1987).

268. Dewey Interview, supra note 117.

269. Narrative, supra note 169, at 22D.

270. Id. at 16B.

271. Nelson Interview, supra note 212. The requirement for psychiatric prescreening derives from Department of the Navy Manual of the Medical Department, Ch. 15, para. 15-37. Two psychological evaluations are required. See

NAVMED Forms 6520-9 and 6520-10. Id. At an Aug., 1987 NSF/NASA-sponsored conference, Justice in the Antarctic, Space and the Military, Navy psychiatrists attributed the lack of crime in the U.S. Antarctic Program largely to the extensive psychological prescreening that personnel undergo before deploying to Antarctica. Telephone interview with LTC F. Kenneth Schwetje, Chief of Space Law, U.S. Air Force Judge Advocate General's Dep't, Washington, D.C. (Mar. 17, 1988).

272. See Antarctica Treaty, supra note 75, art. VIII(1).

273. Id., art. VIII(2)("[T]he Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.")

274. Uniform Code of Military Justice art. 5, 64 Stat. 108, 110 (1950) (current version at 10 U.S.C. § 805 (1982)).

275. 18 U.S.C.A. § 7(7) (West. Supp. 1986).

276. 18 U.S.C. § 7 (1982).

277. See United States v. Escamilla, 467 F.2d 341 (4th Cir. 1972)(homicide committed by civilian contractor on free floating Arctic ice formation within the special maritime and territorial jurisdiction of the U.S.).

278. See Bilder, Control of Criminal Conduct in Antarctica, 52 Va. L. Rev. 231, 260-62 (1966).
279. Memo, supra note 174.
280. Id. at 2.
281. NSF 16, supra note 103, at 1.
282. Narrative, supra note 169, at 12A.
283. Id. at 22B.
284. See Memo, supra note 174, at 1 ("The United States Antarctic Program shall be maintained at a level providing an active and influential presence in Antarctica designed to support the range of U.S. Antarctic interests.").
285. See, e.g., Greer v. Spock, 424 U.S. 828, 840 (1976)("There is nothing in the Constitution that disables a military commander from acting to avert what he perceives to be a clear danger to the loyalty, discipline, or morale of troops on the base under his command."); Cafeteria and Restaurant Workers Union v. McElroy, 367 U.S. 886, 893 (1961)(Commanders have a "historically unquestioned power" to exclude persons from their installations.);
286. See supra note 275 and accompanying text.
287. The statutory language of 18 U.S.C. 37(7) does not expressly exclude from U.S. criminal jurisdiction foreign

nationals immune from U.S. jurisdiction under Art. VIII(1) of the Antarctic Treaty. See supra note 272 and accompanying text.

288. Agreement Between the Parties to the North Atlantic Treaty Regarding the Status of Their Forces, June 19, 1951 [1953], 4 U.S.T. 1792, T.I.A.S. No. 2846, 199 U.N.T.S. 67 (hereinafter NATO SOFA). See also Supplementary Agreement to the NATO Status of Forces Agreement with Respect to Forces Stationed in the Federal Republic of Germany, Aug. 3, 1959 [1963], 14 U.S.T. 531, T.I.A.S. No. 5351, 481 U.N.T.S. 262 (hereinafter Suppl. Agreement).

289. See NATO SOFA, supra note 288, art. VII; Suppl. Agreement, supra note 288, art. 19.

290. See id.

291. To achieve consensus for a jurisdictional agreement, the agreement must, as the minerals regime does, incorporate art. IV of the Antarctic Treaty. See supra notes 86 and 156 and accompanying text.

292. See supra note 272 and accompanying text.

293. Article VIII(1) reads:

In order to facilitate the exercise of their functions under the present Treaty, and without prejudice to the respective positions

of the Contracting Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under sub-paragraph 1(b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect to all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.

Antarctic Treaty, supra note 75, art. VIII(1).

294. States not party to the jurisdictional agreement might successfully argue that assertions of jurisdiction over their nationals by Antarctic Treaty parties violate customary international law. See Bilder, supra note 278, at 276.

295. As used in this discussion, the term "accommodation" refers to the process by which a state or group of states reconcile competing national interests in an attempt to reach consensus with other interested states.

296. See supra note 86 and accompanying text.

297. See United Nations Dep't of Public Information. Everyone's United Nations 169 (10th ed. 1986) ("The

1959 Antarctic Treaty is the first international agreement to provide for the absence of nuclear weapons in a specified area. . . . The provisions of the Treaty appear to have been scrupulously observed.") [hereinafter EVERYONE'S U.N.].

298. See GREENPEACE, supra note 104, at 6 ("[T]he [Antarctic Treaty Consultative Parties] have a reasonably good record of environmental awareness....").

299. Antarctic Treaty, supra note 75, art. XII(2). Any modification or amendment to the treaty after June 23, 1991 will require only majority approval of consultative parties present at a given meeting. Id., art. XII(2)(b). Subsequent failure of the parties to unanimously ratify any such amendment or modification within two years may result in withdrawal from the treaty by any party. Id., art. XII(2)(b)-(c).

300. For an account of the development of the principle, see Zuleta, The Law of the Sea After Montego Bay, 20 San Diego L. Rev. 475, 481-83 (1982); Larschan & Brennan, The Common Heritage of Mankind Principle in International Law, 21 Col. J. Transactional L. 305 (1983).

301. Established in 1963, the group's membership now exceeds 130. See Friedman & Williams, The Group of 77 at the United Nations: An Emergent Force in the Law of the

Sea, 16 San Diego L. Rev. 555 (1979); Schachter, S. & Schuyler, C., supra note 11, at 11-15.

302. Supra note 2. Twenty four Antarctic Treaty parties are signatories to UNCLOS. Id.

303. See, e.g., Simma, The Antarctic Treaty as a Treaty Providing for an "Objective Regime," 19 Cornell Int'l L. J. 189 (1986); Wolfrum, The Use of Antarctic Non-Living Resources: The Search for a Trustee 143, in Antarctic Challenge (1983).

304. See U. N. CHARTER, art. 76, which reads in pertinent part:

The basic objectives of the trusteeship system, in accordance with the purposes of the United Nations laid down in Article 1 of the present Charter, shall be:

a. to further international peace and security;

b. to promote ... political, economic, social, and educational advancement ...;

c. to encourage respect for human rights and for the fundamental freedoms for all without distinction as to race, sex, language, or religion, and to encourage recognition of the interdependence of the peoples of the world;

and;

d. to ensure equal treatment in social, economic, and commercial matters for all members of the United Nations and their nationals....

305. See Wash. Post, Nov. 19, 1987, at A51, col. 1 ("Malaysian Ambassador Dato Yusof Hitam and Australian Ambassador Richard Wolcott, who represented the treaty parties, came close to a compromise that would have resulted in U.N. participation in "appropriate" treaty meetings. But the effort failed over the issue of whether the text would have established the principle of internationalization.").

306. See Report, supra note 164, at 5.

307. See supra note 93 and accompanying text.

308. Report, supra note 164, at 5.

309. Beeby IV, supra note 151, art. 52(2)(a).

310. Id., art. 19(4)(b), 24(3).

311. Id., art. 5(2). The United Nations considers the "sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction" and its resources as "the common heritage of mankind." See UNCLOS, supra note 2, art. 1(1), 136. Some consultative parties, including the Soviet Union, proposed during negotiations that the

minerals regime include the deep seabed south of sixty degrees south latitude. Dewey Interview, supra note 117.

312. In U.N. votes on all resolutions except the South Africa issue, the Antarctic Treaty consultative parties and all acceding states have either abstained or declined to participate. See supra notes 166-68 and accompanying text.

313. This is evidenced by Australian Ambassador Wolcott's reply to the U.N. General Assembly's 1987 Resolution calling on the Antarctic Treaty consultative parties to exclude South Africa from consultative status, supra note 163, in which he admonished that any consultative party hosting an Antarctic Treaty consultative meeting must include South Africa. 42 U.N. GAOR (Agenda Item 70) at 2, 3, U.N. Doc. A/42/587 (1987). Wolcott tempered his warning by adding that South African participation would not have a bearing on "broader foreign policy objectives." Id.

314. In the 41st Session, fourteen Antarctic Treaty parties (five of them consultative parties) - Argentina, Bolivia, Brazil, Bulgaria, China, Cuba, Czechoslovakia, the German Democratic Republic, Hungary, India, Peru, Poland, Romania, and the USSR, voted in favor of excluding South Africa from Antarctic Treaty consultative

status. 41 U.N. GAOR (96th plen. mtg.) at 36, U.N. Doc. A/41/PV.96 (1986). In the 42d Session, fifteen Antarctic Treaty parties, (six of them consultative parties, including the German Democratic Republic), including Ecuador, voted in favor of exclusion of South Africa from consultative status. 42 U.N. GAOR (85th plen. mtg.) at 50, U.N. Doc. A/42/PV.85 (1987).

315. See 42 U.N. GAOR (Agenda Item 70) at 2, 3, U.N. Doc. A/42/587 (1987).

316. See supra note 155 and accompanying text. Cf. UNCLOS, supra note 2, art. 2, 55.

317. See UNCLOS, supra note 2, art. 197 (Co-operation on a global or regional basis), 237 (Obligations under other conventions on the protection and preservation of the marine environment), 242 (Promotion of international co-operation), 311 (Relation to other conventions and international agreements).

318. See U.N. Charter, art. 1, para. 1-4, which state in pertinent part that the purposes of the United Nations include:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and ...

to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among actions based on respect for the principle of equal rights ..., and to take other appropriate measures to strengthen universal peace;

3. To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character ..., and;

4. To be a centre for harmonizing the actions of nations in the attainment of these common ends.

319. See infra notes 312-15 and accompanying text.

Consultative parties whose races are directly affected by white South African racism have been particularly vocal in their opposition to the South African apartheid regime in the recent past. In the 1974 United Nations General Assembly debate over suspension of South Africa from that

body, the Indian delegate remarked:

No amount of pressure, influence and persuasion have so far deflected the white regime from its chosen doctrine of racial supremacy over the blacks, the browns and the Coloured people. The question now facing us is simply this: Should we continue to address recommendations to that racist regime which has remained impervious and indifferent to our resolutions? I suggest that that is a valid question in the light of our unfortunate experience with past resolutions.

It is not surprising that in such a situation the majority of the Members of the United Nations should feel that it is quite hopeless to expect South Africa to respond positively to our recommendations. What, then, are the options open to us? The expulsion of the white regime in terms of Article 6 of the Charter is certainly one of the options but, unfortunately, three permanent members of the Security Council have vetoed such a course of action. We may expect a similar decision in regard to action to suspend South Africa in terms of Article 5 of the Charter.

29 U.N. GAOR (2281st plen. mtg.) at 31-35 (statement of

Mr. Jaipal), U.N. Doc. A/29/PV.2281 (1974).

(From 1970-74, the U.N. General Assembly did not accept South Africa's credentials to participate in the Assembly's regular sessions. At the 1974 session, the President of the General Assembly noted that such refusal to accept credentials "is tantamount to saying in explicit terms that the General Assembly refuses to allow the delegation of South Africa to participate in its work." EVERYONE'S U.N., supra note 297, at 83. Since 1974, South Africa has been officially excluded from United Nations participation. See id.; G. A. Res. 3206, 29 U.N. GAOR Supp. (No. 31) at 2, 10, U.N. Doc. A/RES/29/3206 (1974)).

APPENDIX A

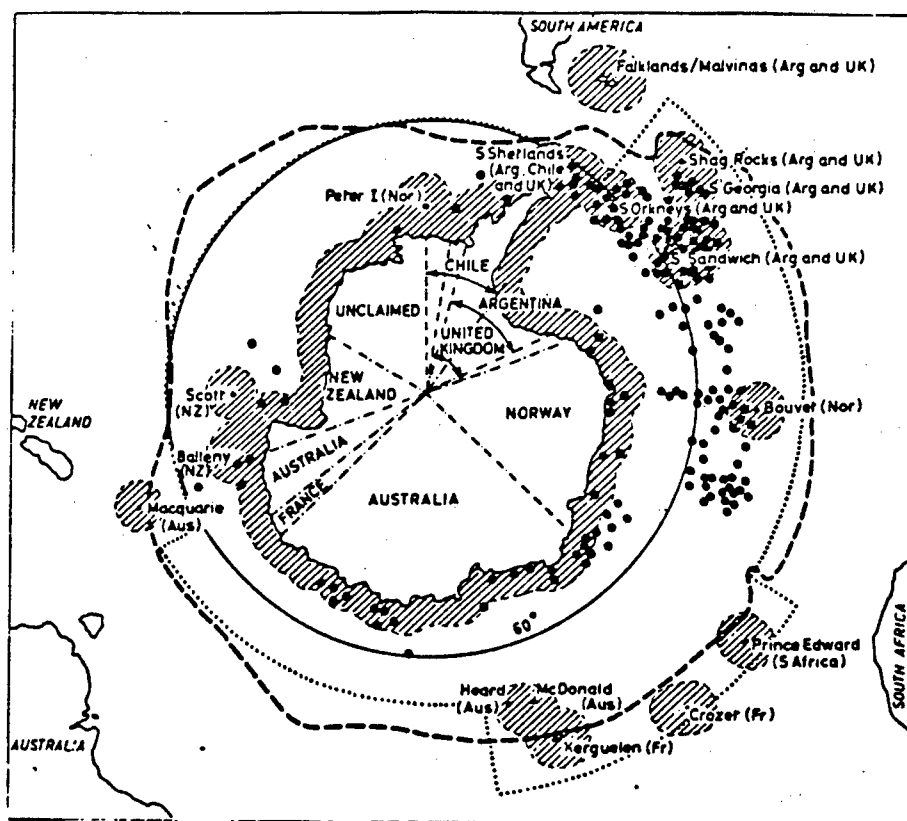
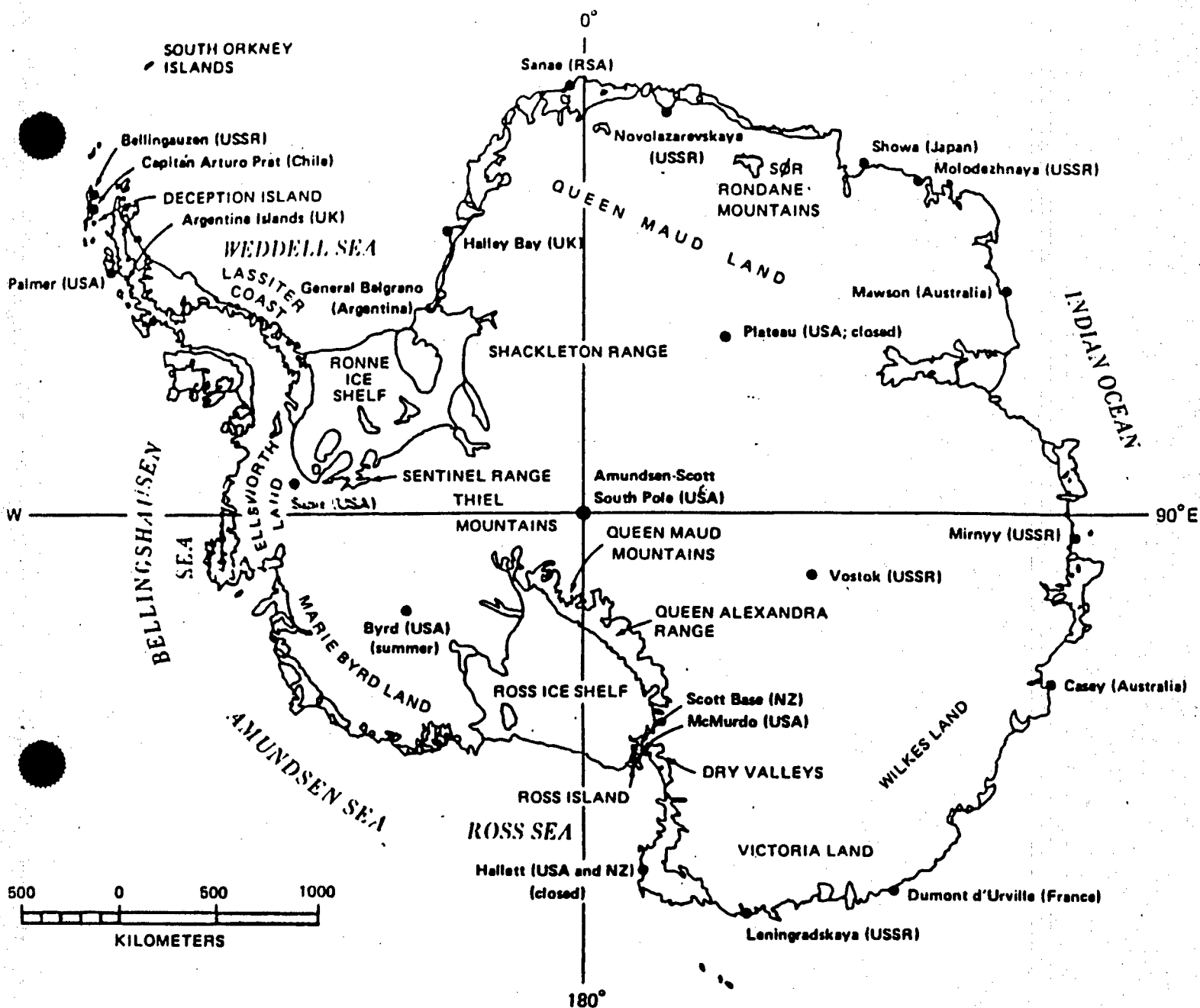


Figure 1.

The Antarctic Treaty encompasses the ocean and land south of sixty degrees south latitude (solid line). CCAMLR expands that jurisdiction to the Antarctic Convergence (broken line). The shaded areas represent potential 200-mile exclusive economic zones emanating from Antarctica and islands (over which undisputed sovereignty exists) in and around the Southern Ocean. Major krill concentrations appear as dots. (Map reprinted from B. Mitchell and J. Tinker, *Antarctica and Its Resources* 67 (1980). Permission from the publisher, Earthscan, pending.)



ANTARCTICA: selected stations and physical features.

Figure 2.

Map reprinted from Nelson, Narrative for the Briefing on U.S. Navy Role in U.S. Antarctic Program 3B, (Office of the Oceanographer of the Navy, Dec. 17, 1987). Used with permission.

APPENDIX B

Text of the Antarctic Treaty

The Governments of Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Recognizing that it is in the interest of all mankind that Antarctica shall continue for ever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging the substantial contributions to scientific knowledge resulting from international co-operation in scientific investigation in Antarctica;

Convinced that the establishment of a firm foundation for the continuation and development of such co-operation on the basis of freedom of scientific investigation in Antarctica as applied during the International Geophysical Year accords with the interests of science and the progress of all mankind;

Convinced also that a treaty ensuring the use of Antarctica for peaceful purposes only and the continuance of international harmony in Antarctica will further the purposes and principles embodied in the Charter of the United Nations;

Have agreed as follows:

Article I

1. Antarctica shall be used for peaceful purposes only. There shall be prohibited, *inter alia*, any measure of a military nature, such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, as well as the testing of any type of weapon.

2. The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

Article II

Freedom of scientific investigation in Antarctica and co-operation toward that end, as applied during the International Geophysical Year, shall continue, subject to the provisions of the present Treaty.

Article III

1. In order to promote international co-operation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:

- (a) information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy of and efficiency of operations;
- (b) scientific personnel shall be exchanged in Antarctica between expeditions and stations;
- (c) scientific observations and results from Antarctica shall be exchanged and made freely available.

2. In implementing this Article, every encouragement shall be given to the establishment of co-operative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

Article IV

1. Nothing contained in the present Treaty shall be interpreted as:

- (a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;
- (b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
- (c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's rights of or claim or basis of claim to territorial sovereignty in Antarctica.

2. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

Article V

1. Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited.

2. In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rules established under such agreements shall apply in Antarctica.

Article VI

The provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

Article VII

1. In order to promote the objectives and ensure the observance of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.

2. Each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica.

3. All areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article.

4. Aerial observation may be carried out at any time over any or all areas of Antarctica by any of the Contracting Parties having the right to designate observers.

5. Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of

- (a) all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory;
- (b) all stations in Antarctica occupied by its nationals; and
- (c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

Article VIII

1. In order to facilitate the exercise of their functions under the present Treaty, and without prejudice to the respective positions of the Contracting

Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under sub-paragraph 1(b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect of all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.

2. Without prejudice to the provisions of paragraph 1 of this Article, and pending the adoption of measures in pursuance of sub-paragraph 1(e) of Article IX, the Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.

Article IX

1. Representatives of the Contracting Parties named in the preamble to the present Treaty shall meet at the City of Canberra within two months after the date of entry into force of the Treaty, and thereafter at suitable intervals and places, for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of the Treaty, including measures regarding:-

- (a) use of Antarctica for peaceful purposes only;
- (b) facilitation of scientific research in Antarctica;
- (c) facilitation of international scientific co-operation in Antarctica;
- (d) facilitation of the exercise of the rights of inspection provided for in Article VII of the Treaty
- (e) questions relating to the exercise of jurisdiction in Antarctica;
- (f) preservation and conservation of living resources in Antarctica.

2. Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such times as that Contracting Party demonstrates its interest in Antarctica by conducting substantial research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition.

3. Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the meetings referred to in paragraph 1 of the present Article.

4. The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.

5. Any or all of the rights established in the present Treaty may be exercised as from the date of entry into force of the Treaty whether or not

any measures facilitating the exercise of such rights have been proposed, considered or approved as provided in this Article.

Article X

Each of the Contracting Parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the present Treaty.

Article XI

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of the present Treaty, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent, in each case, of all parties to the dispute, be referred to the International Court of Justice for settlement; but failure to reach agreement on reference to the International Court shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 of this Article.

Article XII

1. (a) The present Treaty may be modified or amended at any time by unanimous agreement of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX. Any such modification or amendment shall enter into force when the depositary Government has received notice from all such Contracting Parties that they have ratified it.

(b) Such modification or amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification by it has been received by the depositary Government. Any such Contracting Party from which no notice of ratification is received within a period of two years from the date of entry into force of the modification or amendment in accordance with the provision of sub-paragraph 1(a) of this Article shall be deemed to have withdrawn from the present Treaty on the date of the expiration of such period.

2. (a) If after the expiration of thirty years from the date of entry into force of the present Treaty, any of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX so requests by a communication addressed to the depositary Government, a Conference of all the Contracting Parties shall be held as soon as practicable to review the operation of the Treaty.

(b) Any modification or amendment to the present Treaty which is approved at such a Conference by a majority of the Contracting Parties there represented, including a majority of those whose representatives are entitled to participate in the meetings provided for under Article IX, shall be communicated by the depositary Government to all Contracting Parties immediately after the termination of the Conference and shall enter into force in accordance with the provisions of paragraph 1 of the present Article.

(c) If any such modification or amendment has not entered into force in accordance with the provisions of sub-paragraph 1(a) of this Article within a period of two years after the date of its communication to all the Contracting Parties, any Contracting Party may at any time after the expiration of that period give notice to the depositary Government of its withdrawal from the present Treaty; and such withdrawal shall take effect two years after the receipt of the notice by the depositary Government.

Article XIII

1. The present Treaty shall be subject to ratification by the signatory States. It shall be open for accession by any State which is a Member of the United Nations, or by any other State which may be invited to accede to the Treaty with the consent of all the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX of the Treaty.

2. Ratification of or accession to the present Treaty shall be effected by each State in accordance with its constitutional processes.

3. Instruments of ratification and instruments of accession shall be deposited with the Government of the United States of America, hereby designated as the depositary Government.

4. The depositary Government shall inform all signatory and acceding States of the date of each deposit of an instrument of ratification or accession, and the date of entry into force of the Treaty and of any modification or amendment thereto.

5. Upon the deposit of instruments of ratification by all the signatory States, the present Treaty shall enter into force for those States and for States which have deposited instruments of accession. Thereafter the Treaty shall enter into force for any acceding State upon the deposit of its instruments of accession.

6. The present Treaty shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

Article XIV

The present Treaty, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the arch-

ives of the Government of the United States of America, which shall transmit duly certified copies thereof to the Governments of the signatory and acceding States.