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#4-15

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

20 NOV 1975

MEMORANDUM FOR CHAIRMAN, NSC UNDER SECRETARIES COMMITTEE

Subject: United States Antarctic Policy and Program (U)

(U) Reference is made to the report NSC-U/SM 55I, dated 5 November 1975, subject as above, prepared by the USC working group in response to an NSC memorandum which requested a broad review of U. S. objectives in the Antarctic and a recommendation on the over-all dimensions and management options to satisfy those objectives.

(U) With respect to the management options presented, the Department of Defense supports the following:

> "Management Option 1 which reaffirms the current one agency management structure. Over-all management and budgeting responsibility for the entire U. S. Antarctic program would be assigned to the National Science Foundation with DOD and DOT assuring the continued availability of logistic support on a cost reimbursable basis."

(U) The Department of Defense also believes that Option 1 should be amended to permit the National Science Foundation (NSF) to call upon either government or commercial sources for its logistic support on the basis of cost effectiveness. Additionally, the NSF should be assured that its annual budget will be adequate to fund the increasing cost of logistic support operations in the Antarctic. Further, the DOD Fiscal Year 1977 budget, at OMB direction, is structured to support Option 1 and is consistent with the guidance provided by the House Appropriations Committee. The selection of any other option could not be effectively implemented until Fiscal Year 1978 and would require prior clearance with the aforementioned committee.

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SEC DEF CONTR No. X-3392

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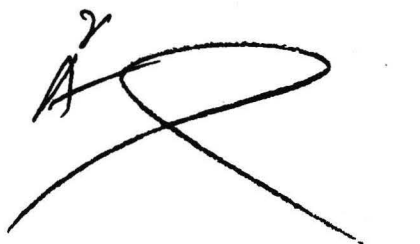

(C) The Department of Defense believes that the draft memorandum for the President should be supplemented by adding comments on the over-all management considerations perceived by the DOD and the long-range implications of Antarctic funding support to the Defense budget.

(C) In regard to management of the program, the Department of Defense believes that NSDM 71 correctly established the principle that one federal agency should oversee U. S. interests in the Antarctic, and that since, as the White House announced on 13 October 1970, "the Antarctic is the only continent where science serves as the principal expression of national policy and interest," it was most appropriate that the NSF be assigned management and budgetary responsibility. Given the recent developing international interest in Antarctic resources, the Department of Defense believes that these NSDM 71 decisions are even more valid today.

(C) In the spectrum of management options presented in the report of the working group, only Option 1 places over-all management and budgeting responsibility in one federal agency, the National Science Foundation. At a time when the possibility of exploitable Antarctic resources has focused new interest in the area, there is a need to be able to acquaint interested Congressional observers, OMB, and other federal regulatory agencies with such aspects as the entire level of federal support, the dimensions of the scientific program, the determination of its effectiveness, cost comparisons, and management procedures and arrangements. Additionally, it permits the Chief Executive to look to one agency for over-all Antarctic responsibility. An additional factor favoring the selection of Option 1 is the impact of any sudden management or budgetary change on the perceptions of our Antarctic Treaty partners and other nations. The Antarctic Treaty preserves the area from any military activity other than that associated with logistic support. A sudden shift of funding responsibility to the Department of Defense could well provoke concern among other nations that the U. S. is looking at the Antarctic from other than scientific considerations, particularly since the resource question is currently placing strain on the treaty itself. Any budgeting within DOD clearly places a military implication on the subject.

(C) Further, the current arrangement is compatible with the intent and desire of the Congress that DOD funding be restricted to supporting those requirements which clearly relate to the national defense. The Antarctic program has been specifically excluded as outside national defense requirements. Recently, largely at the urging of the NSF, the Department of Defense has completed three internal reviews and has informed the Antarctic Policy Group that the Antarctic has no place in any current or foreseeable plans for military operations even if such were permitted by the treaty. The materiel and equipment assigned to the Navy's Antarctic Task Force are currently provided only to support the NSF in response to direction in NSDM 71. If it were not for the assigned responsibility, these assets would be removed from the Defense inventory as being excess to our needs. All cold weather training and research necessary to the Department of Defense is accomplished in the Arctic.

(C) With respect to Defense budget implications, while the realities of fiscal constraint were among the factors which resulted initially in the transfer of all responsibility for the Antarctic to NSF by NSDM-71, those fiscal restrictions are even more sharply felt today. With a Defense budget compressed by Congressional constraints as well as by inflationary forces, DOD funding limitations now impact adversely on every aspect of operations from weapons procurement to maintenance and training. Funding for the Antarctic program, which now approximates $40 million per year can be expected to increase. Future costs can be conservatively predicted to reach almost a quarter billion dollars on a five-year basis. With Congressional support uncertain at best, the Department of Defense clearly cannot agree to support a program of this dimension which is totally outside the national defense requirements of the United States. Within DOD, the Antarctic program would find itself in competition for defense dollars critically and occasionally urgently needed for valid national defense requirements. In that financially competitive environment, funding for the Antarctic program would always be secondary.

(C) Concern has been expressed over the size of the Antarctic program costs in relation to the basic science mission and total budget of the NSF. While the Antarctic program does constitute a large part of the NSF budget, the costs to the U. S. would remain the same regardless of where budgetary

responsibility were assigned. It has been claimed that the requirement for a small civilian agency to justify the budget for operational Navy units is a problem. However, the requirement to justify funding for Navy units employed solely to support the Antarctic program will exist under any management concept. It has been implied that the separation of responsibility to provide funding from the authority to exercise operational control is another management anomaly. Unless total Antarctic management responsibility were vested in a non-DOD agency equipped to operate and manage military assets such as the Coast Guard or NOAA, that anomaly would exist and does not appear to be an insurmountable obstacle to effective and efficient operations. In fact, were aviation and other logistic services commercially contracted, those firms would insist on control over operations, training, and safety of their committed assets. Finally, it is not at all clear that the selection of Option 1 would require a separate Congressional appropriation. Once the financial dilemma is resolved, the Department of Defense believes that any management anomalies can be easily worked out among those concerned by the usual process of memorandum of agreement.

(C) Accordingly, the Department of Defense supports Option 1 on the basis that it is (a) most compatible with sound management procedures and consistent with other management arrangements within the government, (b) capable of insuring, through the provisions of the Antarctic Treaty, that U. S. national interests in resource exploration and exploitation are protected in a time of emerging interest in the Antarctic, (c) in keeping with military constraints of the treaty which require that the area remain militarily benign, (d) one that will allow DOD to carry out its commitment for the national defense without competition from a program unrelated to those defense requirements and (e) conversely, will allow the Antarctic program to be identified as a separate claimant for funds within the scientific community, (f) would avoid the presentation of undesirable signals to our Antarctic, Treaty partners were funding suddenly shifted to the DOD and (g) would, consistent with normal military practices, permit the usual military management and inspection procedures of military assets. Finally, the Fiscal Year 1977 Defense Budget is structured to support Option 1 and is consistent with both Congressional guidance and OMB direction.

(U) Subject to the above recommended modifications to the memorandum for the President to provide the DOD position, the Chairman of the Joint Chiefs of Staff and I concur in the draft memorandum to the President.

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INTERNATIONAL SECURITY AFFAIRS

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

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17 NOV 1975

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In reply refer to:
I-11829/75

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MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE

SUBJECT: United States Policy and Program for Antarctica U/SM-551 (C) -- ACTION MEMORANDUM

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: SEP 0 1 2017

ISSUE: (C) Are the memorandum for the President and report (Tab B) responsive to USC memorandum U/SM 55H of 1 October 1975 (Tab C) which forwarded an NSC request (Tab D) for a broad review of U.S. objectives in the Antarctic and recommendations for appropriate program levels and management arrangements to satisfy those objectives?

BACKGROUND: (C) Since NSDM 71 of 10 July 1970 (Tab E), which assigned over-all management and budgetary responsibility for the U.S. Antarctic program to the National Science Foundation (NSF), not only has the Antarctic emerged as an area of natural resource interest but the logistic costs associated with the ongoing U.S. Antarctic program have risen to a point where the NSF believes it can no longer support the program without adverse impact on its other scientific endeavors. In an effort to force DOD to fund all or part of Antarctic logistic support, NSF has energetically sought to have a formal Antarctic military mission responsibility as well as a funding requirement assigned to DOD. After extensive review within the Joint Staff, which resulted in the ISA study at Tab F, OSD representatives in the Antarctic Policy Group firmly maintained the position taken by you at Tab G and rejected the suggestion that DOD assume budgetary responsibility for logistic operations in the Antarctic. The National Science Foundation at that point placed the issue before the National Security Council.

DISCUSSION: (C) While the Department of Defense is generally sympathetic to the impact of rising logistic costs, the NSF finds itself in the same financial predicament faced by every federal agency -- continued inflation and OMB constraints against budgeting for future cost escalation. The major Department of Defense interest in this issue is to insure that the DOD is not assigned financial responsibility for a program that has been found by earlier NSC decision, Congressional opinion and internal DOD study, to lie outside the requirements for the national defense and which, on a five-year basis, w[illegible] approximately one quarter billion dollars.

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(U) To the extent that it identifies current management anomalies (based solely on financial problems within the NSF), the report is generally responsive to the NSC request. Had time permitted the opportunity to focus on other considerations in greater depth, some attention might have been given to the management problems an international resource regime will create. It would appear that these problems will eventually have to be faced and some consideration given to the development of a federal agency to manage increasingly disparate interests in the Antarctic.

RECOMMENDATION: (U) That you sign the attached memorandum to the Chairman, NSC Under Secretaries Committee (Tab A), which approves the memorandum to the President, states the DOD management option preference, and provides the DOD reasons for favoring that option.

Assistant Secretary of Defense, ISA

Director, Joint Staff

COORDINATION: (See attachment)

Assistant Secretary of Defense (Comptroller)

Chairman, Joint Chiefs of Staff: Approved

Disapproved

Attachments 7
a/s

(C) To the extent that it identifies current management anomalies (based solely on financial problems within the NSF), the report is generally responsive to the NSC request. Had time permitted the opportunity to focus on other considerations in greater depth, some attention might have been given to the management problems an international resource regime will create. It would appear that these problems will eventually have to be faced and some consideration given to the development of a Federal agency to manage increasingly disparate interests in the Antarctic.

RECOMMENDATION: (U) That you sign the attached memorandum to the Chairman, NSC Under Secretaries Committee (Tab A), which approves the memorandum to the President, states the DOD management option preference, and provides the DOD reasons for favoring that option.

Assistant Secretary of Defense, ISA

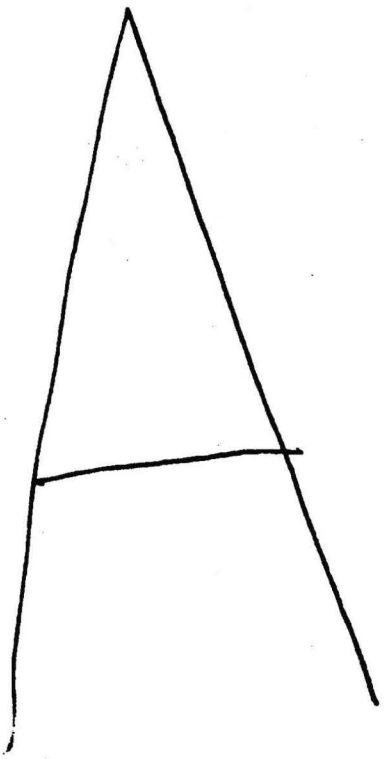
Director, Joint Staff

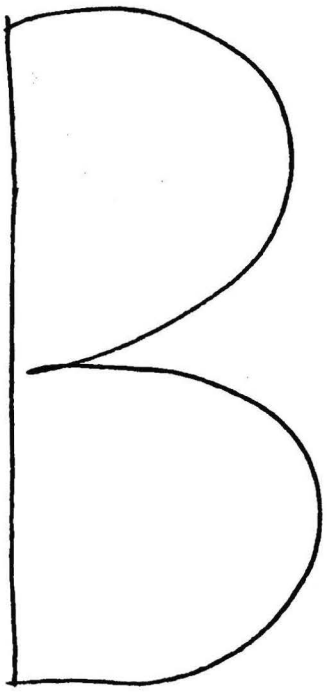
COORDINATION: Jeremiah E McVay 13 NOV 1975
Assistant Secretary of Defense (Comptroller)

Chairman, Joint Chiefs of Staff: Approved _____

Disapproved _____

Attachments





DEPARTMENT OF STATE

Washington, D.C. 20520

NSC UNDER SECRETARIES COMMITTEE

~~CONFIDENTIAL~~
NSC-U/SM-55I
J-5 USC 109-75

Novmeber 5, 1975

TO: The Deputy Secretary of Defense
The Assistant to the President for National Security Affairs
The Director of Central Intelligence
The Deputy Secretary of the Treasury
The Under Secretary of the Interior
The Under Secretary of Commerce
The Under Secretary of Transportation
The Chairman, Council on Environmental Quality
The Director, National Science Foundation
The Director, Arms Control and Disarmament Agency
The Administrator, Environmental Protection Agency
The Administrator, Federal Energy Administration

SUBJECT: United States Policy and Program for Antarctica

Attached for your comment and/or concurrence are a report and draft Memorandum for the President on the above subject. Editorial and minor substantive changes may be telephoned to Mr. Theodore Sellin, Department of State, 632-8997. Members of the Committee are requested to address comments on the options or major substantive changes to the Chairman in writing. Your response is requested by c.o.b. Wednesday, November 12, 1975.

Wreatham E. Gathright
Staff Director

Attachments:

As stated

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DRAFT

TAB D

NSC UNDER SECRETARIES COMMITTEE

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NSC-U/DM-

MEMORANDUM FOR THE PRESIDENT

Subject: United States Policy and Program for Antarctica

NSC Memorandum of October 1, 1975 requested the Under Secretaries Committee, with the assistance of the Antarctic Policy Group, to review U.S. political, economic (including resource), national security, and scientific objectives in Antarctica and to consider appropriate program levels and management arrangements to attain their achievement. The requirement for the review stems from a growing interest in living and non-living resources of the Antarctic, an increase in the level of Antarctic activity by other Antarctic Treaty nations and a steady increase in U.S. Antarctic Program support costs. This memorandum presents the results of the review, which is attached, together with options and agency comments.

A policy to maintain an "active and influential" presence in Antarctica was called for in a 1970 NSC Study, is also set forth in NSDMs 71 and 263 (annexed to

the review) and is deemed to remain valid today. This policy to maintain an "active and influential" U.S. presence in Antarctica was reaffirmed in a directive of yours as recently as May 20, 1975. All agencies involved in the current review concur that probable future developments in the Antarctic require that such a presence be sustained if U.S. interests are not to be seriously harmed.

The review states the following principal findings:

1. The Antarctic Treaty has admirably served U.S. political, scientific, environmental and security interests in the Antarctic Region. It can also help protect our possible future resource interests in the area through the establishment of a satisfactory resource regime. The Treaty Parties, various other countries in the United Nations General Assembly and Law of the Sea forum, U.S. and foreign industry and environmental groups, have shown an increasing interest in Antarctic resources and the consequences of their possible exploration and exploitation. Their efforts to influence an Antarctic resource regime will place increasing strains on the Treaty system. The strength of the Treaty will be directly related to the level of the U.S. presence in Antarctica and thus to the leadership role of the U.S. among Treaty nations.

2. The U.S. negotiating position in discussions with other Antarctic Treaty parties on an international Antarctic resource regime, which are expected to begin in the near future, will be seriously eroded if the level of U.S. activity, and corresponding U.S. presence and influence, declines appreciably.

3. The Soviet Union has increased its Antarctic activity and thus its role in Antarctic affairs and will, if present trends continue, replace the U.S. as the preeminent nation on the Continent.

4. The Antarctic Treaty prohibits measures of a military nature and nuclear testing in Antarctica, except that military personnel and equipment can be used to support scientific research. The Treaty allows inspection to verify compliance with the disarmanent aspects of the Treaty. While the Soviet Union does not exercise its right to inspect, the United States does so on a regular basis. This right is an important precedent and its exercise requires the capability to reach all foreign stations in the Antarctic.

5. While prohibited military activities by U.S. or the Soviet Union in the Antarctic are considered unlikely, it is desirable that the military continue to provide support for the U.S. Antarctic program. This military support provides unparalleled flexibility of operations in Antarctica and

underscores the importance the U.S. attaches to the Antarctic.

6. Scientific research continues to the principal expression of U.S. interest in Antarctica. At present two coastal stations and two inland stations, one of which is located at the South Pole, are utilized for the United States Antarctic Research Program. The extent and location of research activities, including the siting of a station at the South Pole, are determined not only by scientific consideration but also by legal and political considerations to protect and advance the totality of U.S. interests in Antarctica.

7. If current funding levels are not increased, rising program costs will force a dimunition of U.S. activity in Antarctica.

8.Present budget and management arrangements are unsatisfactory and have led to increasing difficulties which can result in reduced U.S. activity in Antarctica.

9. If funding levels are such as to require the U.S. to withdraw from the South Pole and other inland stations, there would be an inducement for others, particularly the Soviet Union, to occupy the prestigious South Pole location, perhaps even utilizing parts of the U.S. facilities.

The group conducting the review was asked to develop options on levels of funding and options for management arrangements for the U.S. Antarctic program.

Five options are set forth on levels of activity in Antarctica ranging in costs from $3.5 million to $60 million.

All agencies agree that the U.S. should maintain a presence at least at the present level of $45 million - Level III. As reflected in subsequent discussion of agency comments, several agencies believe that the U.S. level of activity in Antarctica should be increased. This view is held, in part, because some resource assessment and environmental appraisal can be conducted at Level III, but significant resource assessment and environmental appraisal takes place only at Levels IV and V.

If Level I is selected as the appropriate level of U.S. activity in Antarctica, administration and funding problems will be inconsequential and no further decision is required. Under Level II, Department of Defense (DOD) involvement would not be so significant as to require decisions clarifying administrative and budgetary arrangements. Should it be concluded that either Level III, IV, or V is appropriate to protect and advance U.S. interests, decisions with respect to management and funding problems are required.

With respect to management options, the group considered alternational arrangements including those set forth in the 1970 NSC Study, and concluded that the following three options represent viable alternatives at this time:

Option 1. National Science Foundation (NSF) is assigned the sole responsibility to manage and budget for all U.S. Antarctic activities, and for overall national program management. Department of Defense (DOD) and Department of Transportation (DOT) are required to provide requested support on a cost reimbursable basis and to assure the continuing availability of essential components and the ability to augment them.

This option closely correlates to the present arrangement. Several problems that are at the core of the current management and budget dilemma, which in turn was the genesis of this review, would remain. They are: a) The size of the Antarctic Program costs in relation to the basic science mission and total budget of the NSF; b) The requirement for a small civilian agency to justify the budget for operational Navy units; and c) The separation of responsibility to provide funding from the authority to exercise control over operations and safety. Successful implementation of this option might require a separate appropriation from Congress, and would require a revision of previous decisions on management arrangements.

Option 2. DOD and DOT are responsible for funding and management of respective logistic support components and operations while NSF is responsible for funding and managing the science program.

Under this option, DOT would fund and manage all icebreaker support and associated operations as identified. DOD would have the assigned mission to provide and to manage and budget for all other logistics. NSF would have similar responsibility for science.

Each agency's assigned mission responsibility would be reflected in appropriate budget line items requiring corresponding management and cost justification. Overall program management is jointly conducted by a subgroup of the APG* made up of representatives of the three assigned agencies.

Option 3. NSF is responsible for funding and managing the science program and NSF is required to fund and manage a portion of the logistic support. DOT is responsible for funding and managing icebreaker support and associated operation as identified. DOD will have the assigned mission for the remainder. Suboptions are:

Suboption A - NSF will fund all costs for operation of DOD units while deployed in the Antarctic Program and DOD will fund all other costs except those assigned to DOT.

This suboption is a logical division of the program in that DOD would determine all criteria for manning levels, training, and operations of DOD units while not deployed to Antarctica.

*Antarctic Policy Group

Suboption B - NSF would reimburse DOD for logistics directly in support of specific scientific projects.

This suboption would tie NSF reimbursement only to logistic costs directly in support of specific scientific projects.

Suboption C - NSF would reimburse DOD for all costs by the Naval Support Force, Antarctica organization, and DOD would fully fund all operations and training by the air support squadron.

This suboption offers an organizational division that is consonant with the full time management of Antarctic program functions performed by the staff of the Naval Support Force.

Because the line dividing costs in any of the suboptions under Option 3 cannot be clear and unambiguous, selection of option 3 would require an additional elaboration by OMB of the precise definition of the costs chargeable to NSF, DOD, and DOT.

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U.S. Policy And Program for Antarctica

Contents

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U.S. Policy And Program For Antarctica

NSC Memorandum of October 1 requested the Under Secretaries Committee, with the assistance of the Antarctic Policy Group to review U.S. political, economic security and scientific objectives in the Antarctic and to consider appropriate program levels and management arrangements for their attainment. The Memorandum called for presentation of options with respect to U.S. presence and level of activity in Antarctica and the necessary funding and management arrangements, together with their advantages and disadvantages and each agency's views and recommendations thereon. The review takes place in the context of the steady rise in support costs which calls into question the U.S. Antarctic program at a time of growing national and international interest in the resources of the Antarctic and of increased levels of activity by other Antarctic treaty nations.

I. Introduction

Maintenance of the Antarctic Treaty and the Antarctic Treaty system is a basic U.S. policy objective. The Treaty and the consultative mechanism it created have been the instruments through which the United States has sought the satisfaction of its political, security, environmental, scientific, and economic objectives in Antarctica. Similarly, the preservation of our position that Antarctica is not subject to the sovereignty of any state is necessary for the protection of U.S. interests. It is only so long as Antarctica remains an international area that the United States will be free to pursue its national interests there. (See Appendix A)

The Treaty offers a sound and very successful framework for pursuing political, security, scientific and environmental interests. The Treaty, however, did not address the question of a legal framework for the potential commercial exploitation of Antarctic resources. As the United States and other Antarctic nations have begun to define their economic interests in Antarctic resources, and signs appear that the United Nations may take an interest, the issue of an international legal regime for resource activities becomes linked to the continued viability of all other U.S. interests and

objectives, and especially the basic objective of maintenance of the Treaty.

A. Policy Guidance

General policy guidance for U.S. activities in Antarctica is contained in two NSDM's--No. 71 of 1970 and No. 263 of 1974. In NSDM 71 the President decided that the Antarctic presence should continued at a level which maintains an "active and influential" presence in Antarctica and which is responsive to U.S. scientific, economic and political objectives. An "active and influential" presence in Antarctica has in the past been determined to be, among other things, year-round manning of both coastal and inland stations on the Continent. NSDM 263 reiterated the policy and added that the United States be prepared to augment such a presence as appropriate. The policy directives in NSDM 263 were recently reaffirmed in an NSC Memorandum to the Chairman of the Under Secretaries Committee dated May 20, 1975.

The nature of an "active and influential" presence in Antarctica, thus, is limited to the achievement of U.S. interests in Antarctica. U.S. interests and objectives have been identified in above directives and are summarized in Appendix B. An "active and influential" presence in Antarctic is not anend in itself but a means of achieving U.S. objectives in Antarctica. The basic purpose of this review is to reassess this concept in light of recent developments affecting U.S. interests. These recent developments fall into three categories: national and international attention to the potential of Antarctic resources and possible legal regimes for their exploitation; the level of U.S. presence and activities in Antarctica relative to those of other interested nations; and the costs associated with continuing U.S. activities at this or higher levels.

B. The Antarctic Resources Question

In a world increasingly short of energy and food, the possibility that Antarctica and the Southern Ocean may offer hydrocarbon and protein resources in commercially exploitable quantities has gained the attention of the Antarctic Treaty partners and other nations. In fact, the resource question has become one of the most important and possibly divisive issues for the future of the Antarctic Treaty system, and a major component in the policies of Treaty Parties.

Data on the resource potential in Antarctica are limited and the full extent of that potential is yet to be established. Based on scientific studies of the geological origins of Antarctica and some geophysical surveys undertaken there, it is believed that there are hydrocarbon deposits in areas of the Antarctic continental shelf which may become commercially exploitable. In addition, the Southern Ocean surrounding the Antarctic continent has the highest biological productivity of any marine area of the world. It supports a large standing crop of krill, a small shrimp like crustacean, as well as stocks of squid, fish, whales, seals and marine birds.

The level of U.S. presence and activity in Antarctica bears upon our ability to further evaluate our resource interests there. It directly affects our capacity to determine and assess both the living and non-living resource potential of Antarctica and the Southern Ocean and the impact upon the Antarctic environment of possible resource exploitation.

The extent and geographic dispersion of U.S. presence in Antarctica is also closely linked to the intensity with which we are perceived to maintain our juridical position on territorial claims and access to resources and, therefore, to our political and negotiating position in resolving the resource question. It is U.S. policy to seek an international arrangement for dealing with any commercial exploration and exploitation of Antarctic mineral resources. The development of such an arrangement, an issue which could not be resolved when the Antarctic Treaty was negotiated, will be an extremely difficult and delicate task. U.S. ability to achieve an acceptable resource regime is a function of our commitment to a full and active program in the Antarctic. For instance, it is likely that any significant reduction in our presence would limit our ability to influence the resource negotiation to our advantage.

With regard to living resources, growing interest in krill and other living resource stocks in the Antarctic clearly signal that international arrangements will be needed to provide for rational management and conservation. Even if the U.S. never engages in actual exploitation of such stocks, we will need to protect our interests in preservation of the unique ecosystem of the region. For this reason, and in order to protect our juridical position in the Treaty area, it is in U.S. interest to participate fully in development and implementation of any such international arrangements.

II. U.S. Presence in Relation to the Activities of Others

A. Military Implications of Antarctic

The history of the Antarctic has been unique in an almost total lack of military operations there other than those associated with logistic functions is support of national scientific programs. Increasing budgetary constrain and a narrowing of U.S. defense interests to areas of significant strategic importance makes it unlikely that the Antarctic continent will develop as a locus for U.S. military activity, either of a research and development nature or an operational nature. In the foreseeable future its inhospitable climate for both man and equipment and the provisions of the Antarctic Treaty are formidable constraints on the use of the Treaty area for U.S. offensive military operations. These considerations may not apply to Argentina.

Nonetheless, the military feature of our logistic support is a traditional and accepted means of making the U.S. presence felt. It gives the U.S. a logistic flexibility and reach in the area which is presently unequalled by other countries and establishes U.S. ascendancy on the Continent in a manner which no other support capability could ensure. An in-place military component, even though unarmed and modest as it is, clearly provides operational capability which no other country has should the Antarctic become the scene or object of discord.

The U.S. military presence in Antarctica also serves the political purpose of maintaining U.S. leverage on other countries to seek solutions to Antarctic problems in the context of the Treaty framework, ensuring that U.S. interests are accommodated in arriving at these solutions, and contributing to the ability of the U.S. to take a dominant leadership role in Antarctic affairs.

If economically recoverable petroleum (or other minerals) should be found on the Antarctic continent or in Antarctic waters, the U.S. would insist on a right of access. However, if an international approach cannot be agreed upon, the U.S. could elect to exploit unilaterally since we believe it to be our legal right

to do so. If U.S. military is in the proximity in credible numbers, albeit unarmed and in a science support role, the likelihood of harassment of our commercial operations by claimant nations could be significantly diminished.

On the other hand, the removal of the U.S. military presence could signal reduced U.S. interest in Antarctica and could result in an erosion of our effective role in Antarctic affairs. Such an action could, therefore, be counterproductive to the full range of U.S. interests. Moreover, once terminated, any reestablishment of U.S. military presence, even though for science support, might be seen as a ruse by the U.S. to introduce a military force as a guarantor for commercial operations to follow. This could cause major political problems for the U.S.

B. The U.S. Antarctic Program

NSDM 71 established the National Science Foundation as the agency responsible for funding and management of the U.S. Antarctic Program, and for the maintenance of the "active and influential" presence. The resulting OMB Circular A-51 (revised) details the responsibilities of NSF to include funding of logistic support activities except where such services are funded by the Departments of Defense or Transportation or other agencies. NSF is further authorized to draw on logistic support capabilities of government agencies on a mutually agreed reimbursement or non-reimbursement basis or to use commercial or other capabilities if they are most cost effective. (See Appendix C.)

The cost of NSF's activities in Antarctica will rise from approximately $30 million in FY 1976 to $45 million in FY 1977. Of this, about 90 percent will be for logistical support to maintain the U.S. presence. Under present budgeting practices, spiraling logistics costs threaten to force significant curtailment of the U.S. Antarctic Research Program (USARP), a course of events which would result in a significant reduction or absence of a viable U.S. presence on the Continent.

This U.S. presence in Antarctica centers on the National Science Foundation's scientific research program at the present time. The extent and location of these scientific research activities are only determined in

part by scientific considerations. The opening of a station at the South Pole at a construction cost of $6 million was not justified by scientific considerations alone. Other relevant factors included the prestige and leadership of manning a year-round station at the South Pole where six of the seven territorial claims meet.

1. Objectives of the United States Antarctic Research Program (USARP)

The objective of the United States Antarctic Research Program (USARP), the science component of the U.S. program is to support the research necessary to acquire a full understanding of the complex and interrelated characteristics of this polar continent and their interrelationship with the rest of the world. The Antarctic is geographically isolated but it is now known to be geologically similar to other southern hemisphere continents and to have an extremely important influence and interaction with the global atmospheric and oceanic systems. The accumulation of ice contains a record of the earth's past climate, and the isolation of the continent provides a natural laboratory for the sutdy of variation in atmospheric composition and distribution of pollutants.

The exploration phase of research was followed by a broad assessment of biological, geological, meteorological, glaciological, and atmospheric components of the Antarctic environment. We are now entering a phase of research directed toward analysis of specific problems in the various disciplines. The survey of the seas around Antarctica continues. These research efforts to date have provided basic data essential to solving special scientific problems as they relate to the Antarctic specifically and to the understanding of the role of the Antarctic in the total earth environment.

NSF is charged with the responsibility for all aspects of developing and implementing an integrated U.S. program for Antarctica. Resource assessment and environmental appraisal will continue to be a component of the long range program.

The assessment of resources has just begun. The necessity to increase our knowledge of these resources is recognized and will be an essential element of USARP in the coming years.

The Antarctic environment is unique. The possibility of resource development and exploitation requires a careful analysis of the effects of such activity on this environment. An assessment of these possible environmental effects is acknowledged as a necessary component of the continuing U.S. program in Antarctica.

Underlying these objectives and related to the NSF responsibility of managing a national program in Antarctica, are the policy objectives and our responsibilities for international cooperation and information exchange. In this regard, the exchange program for scientists in Antarctica takes on special significance. The summer and winter placement of U.S. scientists at stations of other countries, including Soviet stations, not only greatly enhances the scientific cooperation called for by the Antarctic Treaty, but provides an informal but no less effective on-going means of verification of Treaty compliance by others. Likewise, foreign scientists at U.S. stations perform the same function.

2. The Current U.S. Antarctic Program

The United States operates four year-round stations in Antarctica. McMurdo, the logistic hub for support of all other stations except Palmer, is the largest with an average summer population of 800 and a winter population of less than 50. Pole and Palmer Stations are smaller, each having a winter population of 20 or less. Siple Station is a very compact remote installation with a winter population of only 5. It has been operated in the summer since 1969 and became a year-round station in 1973. In addition to the stations, there are two research ships; the R/V Hero, operated as part of the Antarctic Peninsula and Palmer Station program, and the Islas Orcadas (formerly USNS Eltanin) now operated by the Argentine Navy on which the U.S. program is allocated 100 days per year for oceanographic research in the Southern Ocean. Other research vessels from the academic fleet have operated south of 60°S, particularly in the Drake Passage area. During the austral summer, field camps may be established at verious locations on the continent to support research activities.

Air support consists of five ski-equipped LC-130 aircraft (only 3 are currently operational) and 7 UHIN helicopters. Movement to and from the continent is by Military Airlift Command charter flight (C-141 or commercial charter). In addition, during the past three

seasons, Twin Otter aircraft, either chartered from civilian operators or operated by the British Antarctic Survey, have been used on the Ross Ice Shelf.

Icebreaker support has consisted of two icebreakers deployed south of 60°S for about 75 days each year and have been utilized to open the channel through the sea ice to McMurdo and for scientific work.

Two cargo ships, one dry cargo (USNS Pvt. John R. Towle) and one tanker (USNS Maumee), visit McMurdo each year.

C. Other Aspects of the U.S. Presence

U.S. presence is augmented by periodic inspections under ACDA auspices in accordance with Article VII of the Treaty. The U.S. has carried out four inspection tours of bases maintained in Antarctica by other Treaty parties. The purpose of inspections is to verify that the activities of other Treaty parties are carried out in full compliance with Treaty terms, and in particular that such activities are for peaceful purposes and that no weaponry testing, military manuevers or any other such military activity takes place within the Treaty area. Article VII, like several other of the Treaty terms, has become a precedent for certain arms control agreements which similarly provide for verification, e.g. the Outer Space Treaty and the Seabed Treaty.

A reduction of the U.S. presence would inhibit capabilities for inspections, especially those of inland stations.

A removal of the U.S. presence, and specifically the abandonment of U.S. stations, would have other negative aspects of a geopolitical consequence. Were the U.S., for example, to close the new and prestigious South Pole station, there is reason to believe that the Soviet Union and possibly others, would seriously contemplate taking it over, and the U.S. would have no legal means to prevent it. Additionally, if any claimant nation, such as UK, France or Argentina, were to replace the U.S. at the South Pole station it would have the effect of reinforcing its claim, with attendant negative political consequences for U.S. interests.

D. The Antarctic Programs of the Other Treaty Nations

Nine other Treaty nations regularly conduct research

at permanent stations, in the field, and from ships within the Treaty area. Most of these national programs have not changes appreciably in size during the last decade. The exception is the Soviet Union, whose strong long-term upward trend in the scale of their program activity contrasts sharply with this overall picture. The USSR seems to have been the first country to have committed program resources in recognition of the economic potential of Antarctica. (See Appendix D.)

The Antarctic programs of most of the other Treaty nations have been subject to close management and budgetary review during the last several years. Partly in response to this pressure, several -- and possibly all -- national programs have increasingly been justified on the basis of immediate and potential economic benefits to be derived. At the same time there has been a growing worldwide awareness of the area's potential living and mineral resources. Taken together, these factors have caused a detectable shift in Antarctic program priorities, and they may have prevented a deemphasis of Antarctic research.

There is no evidence that any country has yet conducted mineral exploration with purely commercial intent. Geological research has been basically scientific in nature, although several countries note that their goal is to lay the groundwork for future economic resource surveys. This later theme seems to be more prevalent in the last several years. The most dramatic increase in reconnaissance geological surveys occurred in the 1971-72 Soviet expedition when a four-year field program was begun in the Australian claimed territory. This field program is being transferred to an area within the Argentine and British claims during the present summer season.

Although there has been no commercial mineral activity, several countries, including the U.S.,have received inquiries from petroleum and mining firms seeking information on the Antarctic legal situation or actual licenses to operate within Antarctica. In all cases this commercial interest was reportedly discouraged.

E. International Interest in Antarctica

Antarctica is increasingly gaining the attention of international organizations and countries which have not hitherto demonstrated an active interest in the area.

This interest is stimulated by interlinked concerns about the environment, resources, and, to some extent, desires to internationalize the Antarctic for broader political reasons. At the current session of the of the UNGA, for example, the stage was set for an initiative next year by Sri Lanka for a resolution extending UN jurisdiction to Antarctica. Such a move by the UN could tacitly recognize the territorial claims to the detriment of the U.S. position on the continent. The twelve Antarctic Treaty Consultative Parties have long opposed any UN involvement in Antarctica, in part because of the potential for disruption of the delicate balance of political and juridical positions of the twelve.

1975 also saw the inscription, for the first time, of an item on Antarctica in the United Nations's Environmental Program's (UNEP) planned activities.

The reaction of the Treaty signatories was uniformly negative. The item was removed. A UK aide memoire to all treaty signatory capitals, expressing a view held in many of those capitals, characterized the UNEP plans as either "ignorant meddling or a conscious attempt by the UNEP Secretariat to usurp the functions and responsibilities of all those nations who are active in, and knowledgable about, the area, who are signatories to the Antarctic Treaty,"

F. Activities of Non-Consultative Parties to the Treaty and Non-Parties

Seven countries have acceded to the Antarctic Treaty since it was signed on December 1, 1959. They are: Poland (1969); Czechoslovakia (1962); Denmark (1965); Netherlands (1967); Romania (1971); German Democratic Republic (1974); and Brazil (1975). None has conducted the substantial scientific activity in Antarctica to qualify it for consultative status under Article IX, para 2 of the Treaty, i.e. the right to participate in the periodic Consultative meetings, although nationals of all or most have participated in expeditions of various of the twelve treaty signatories. Of the seven, only Brazil--whose accession appears to have been keyed to an effort to participate in the 1975 Eighth Antarctic Treaty Consultative Meeting, may be seriously considering a science program which would give it consultative status.

Brazil's accession is of significance primarily because its membership in the treaty presumably puts to rest the apprehensions of other Treaty parties, particularly Chile, Argentina and the UK, that Brazil might assert a territorial claim in Antarctica, since such action is prohibited by the Treaty.

Non-party activity in the Treaty Area has so far been limited to the field of living marine resources. The Federal Republic of Germany is deploying a research vessel to Antarctica this year to survey krill and other marine living resources and there are indications that South Korea is interested as well.

Broadening of the membership in the treaty has the obvious advantage of widening international acceptance of its regime as a legitimate and viable instrument. However, an increase in active members of the Treaty would also introduce an increased potential for friction among the Treaty partners, especially at a time when contentious resource questions are coming to the fore.

III. Level of Activity and Arrangement for Management and Funding for a U.S. Antarctic Program

There is disagreement among concerned agencies which focuses on the overall funding and management of the U.S. Antarctic Program and the role of agencies involved. The opposing contention may be stated in brief as:

(1) In the absence of a formally assigned military mission in the Antarctic, DOD antarctic logistic support components and their operations exist only to support the NSF program and their total costs must be reimbursed on a year round basis; and

(2) NSDM-71 and OMB Circular A-51 (revised) assign mission responsibility to DOD as well as to other agencies for joint conduct of a national program for Antarctica, and that DOD therefore has an associated funding responsibility such as budgeting the costs of assuring the continuing availability of essential support components.

It is essential that there be a conclusive resolution of this question, for it may be foreseen that in the absence of an assigned DOD mission to provide and manage logistic operations in Antarctica these functions will probably be forced by budget and management realities to be retrenched and civilianized, and that this change will be irreversable. Further, the question must be resolved within the context of the desired administrative arrangement and level of activities of the U.S. program in Antarctica. Therefore, descriptions of alternative activity Levels and management systems are presented below, with Management Options presented in the subsequent Section IV.

A. Options for Program Levels for U.S. Antarctic Operations

The level of U.S. activity in the Antarctic during the years since the 1970 study, as expressed by the scientific program, has fluctuated as it reacted to budgetary levels. The support costs for the United States Program in Antarctica are basically fixed costs that are affected only slightly by an increased science program activity. Conversely, if there are budget cuts or restrictions it is the science program activity that is cut the most as the fixed costs, the logistics, cannot be greatly reduced.

In the 1970 study, seven levels of activity were considered. The price tag on these varied from $7.0 million to $42.0 million (expressed in 1970 dollars). The level recommended was Level V,

or a continuation of the then existing level of activity. The cost attached to this level of activity consisted of components funded at that time by NSF, DOD, and DOT.

For the purposes of this study, five levels of activity have been considered. Level III of this study equates to Level V of the 1970 study and to FY 75 level of activity. The costs are given in FY 77 dollars as identified by the agencies involved (NSF, DOD, and DOT).

Level I ($3.5 million) can be accomplished with DOT and civilian contractor support of the NSF science activities. This level involves no year round manned stations, no heavy-lift aircraft, little if any international science cooperation, and no ability to inspect inland stations of other countries.

Level II ($23.5 million) adds two year round coastal stations and helicopter support at McMurdo. DOD support for the McMurdo operation is desirable but not essential. At this level, science activities could be expanded some but they would be limited in geographical scope. Little, if any, resource assessment, either of living resources or mineral resources, would be possible. No ability to inspect inland stations of other countries. Little if any international exchange possible.

Level III ($45.0 million) relates to the average level of U.S. activity the past five years (see discussion, page and includes two coastal and two inland stations manned year round). Token resource assessment is possible under present guidelines which call for a balanced science program. Heavylift aircraft capability is essential to support the inland stations and requires a logistical support base at McMurdo, New Zealand, etc. International exchange and cooperation at present level.

Level IV ($53.0 million) requires the same logistic base as Level III but provides funding for maximum utilization of that base by the science activity. A leased research vessel, suitable for polar work, is added and could be utilized for resource assessment on the continental shelves and in the seas around Antarctica (both living and mineral resources). A greatly increased international exchange program would be possible.

Level V ($60.0 million) increases the logistic base by adding additional air elements and a new station. At this level a concentrated effort on resource assessment in addition to the

balanced science program would be possible. A network of automatic stations would be deployed at preselected sites on the Continent.

At Levels III, IV, or V DOD participation in operation and management of the logistic system is essential. This is true from an operational and cost-efficiency point of view. (In section II.A. above the national interest value and political utility of military presence were discussed.) There are certainly some elements of the logistics program that could be contracted to civilian sources, in addition to the contractor operations which already exist. However, the time constraints imposed by this study have precluded the opportunity to obtain realistic estimates of cost for this mode of operation. There are some vital elements, such as the intra-continental (ski LC-130) airlift and ice-strengthened supply ships, that are uniquely a DOD capability.

LEVEL I — TOKEN PRESENCE

Costs (Thousands of dollars);

a)	Science	$ 1,100
b)	Support	2,350
	Total	$ 3,450

Major Elements:

USCG Icebreaker for 90 days
R/S Hero for year round operations

Program:

One USCG icebreaker would deploy below 60° south latitude for a 90 day period each austral summer. Approximately 10 scientists deploy with the icebreaker to conduct a small multidiscipline marine and terrestrial science program. Helicopters and small boats would allow landings at research sites in the coastal areas of Antarctica. Inspection of foreign stations, to verify treaty compliance, could be conducted as required. The R/S Hero will operate in her present mode on a year round basis, but without the resources normally available to her at Palmer Station.

Significant Impacts:

- Abandonment of all stations.
- Would evidence greatly reduced U.S. interests in Antarctica.
- Possible takeover by Soviet Union and other countries of U.S. assets.
- No scientific support for resource assessment.
- Minimal marine and terrestrial research projects at coastal locations.
- No inter-continental or intra-continental airlift.
- Limited inspection capability at foreign coastal stations only.
- Very limited international cooperation, if any.
- No significant environmental monitoring

LEVEL II — MARGINAL PRESENCE

Costs (Thousands of dollars);

a) Science	$ 3,000
b) Support	20,500
Total	$23,500

Major Elements:

McMurdo Station
Palmer Station
2 USCG Icebreakers for 90 days each
R/S Hero
UHIN Helicopters at McMurdo
Charter cargo ships and/or charter aircraft

Program:

At this level we can maintain two coastal stations on a year round basis and conduct a productive, but geographically confined science program during the austral summer season.

McMurdo Station and Palmer Station would operate year round at the current winterover level. The notable addition at this level would be the UHIN helicopter support at McMurdo for a four to five month period during the austral summer.

As many as 125 scientific personnel could participate in a variety of field projects in and around McMurdo, at Palmer Station, and aboard the icebreakers and the R/S Hero.

Transportation of personnel and supplies would be accomplished using a mixture of charter ships and aircraft for intercontinental transport.

Significant Impacts

- Appearance of substantially reduced U.S. interests in Antarctica.
- Possible takeover by the Soviet Union or others of South Pole station.
- No significant scientific support for resource assessment.

- Productive, but geographically confined research program, at coastal locations only.
- No intra-continental airlift.
- No inland stations.
- Limited inspection capability at foreign coastal stations only.
- Opportunities for international cooperation increased over Level I but still limited. NO winter over exchange scientist.
- No significant environmental appraisal.

LEVEL III — ACTIVE PRESENCE

Costs (Thousands of dollars):

a)	Science	$ [illegible]00
b)	Support	4[illegible].000
	Total	$4[illegible].000

Major Elements:

McMurdo Station
South Pole Station
Siple Station
Palmer Station
2 Icebreakers for 90 days each
R/S Hero
5 LC-130 Ski Aircraft
5 UHIN Helicopters
1 Twin Otter (Leased)
Charter cargo ships and charter aircraft
Islas Orcadas (100 days)

Program:

This level will allow about 200 hundred scientists and technicians to conduct field research at a variety of field sites during the austral summer season. UHIN helicopters can provide support in and around McMurdo and LC-130 aircraft and a leased Twin Otter can support field research at remote field sites around the continent.

R/S Hero can operate on a year round basis, and in consort with Palmer Station, can support a variety of marine and terrestrial research projects in the Antarctic Peninsula during the austral summer.

This level will allow a contribution of approximately one half million dollars to the operation of the Islas Orcadas. The 100 days of research time will be used to support multidisciplinary marine research aimed at completion of the circum-Antarctic Survey.

Significant Impacts

- Reflects no change in U.S. interests in Antarctica.
- Limited scientific support for resource assessment.

- Productive multidiscipline research program at two coastal and two inland stations, at a number of field locations and aboard two ocean research platforms augmented by an icebreaker research platform. Compares to FY 75 program level.

- Inter-continental and intra-continental airlift FY 75 level.

- Four (4) permanent stations (2 inland).
- Inspection capability at foreign coastal and inland stations.
- International cooperation greatly increased over Level II. Winter over exchange scientist program possible.
- No substantive environmental appraisal.

LEVEL IV — EXPANDED PRESENCE

Costs (Thousands of dollars):

a)	Science	$ 9,000
b)	Support	44,000
	Total	$53,000

Major Elements:

McMurdo Station
South Pole Station
Siple Station
Palmer Station
2 USCG Icebreakers for 90 days each
R/S Hero
5 LC-130 Ski aircraft
5 UHIN Helicopters
1 Twin Otter (Leased)
1 Research Ship (Leased)
Charter cargo ships and charter aircraft
Islas Orcadas (100 days)

Program:

This level will allow for an increase in scientific activity over Level III by the maximum utilization of available support resources complemented by the use of a leased research ship.

The program at this level can support about 250 scientists and technicians in the field during the austral summer season. The field activities will be much the same as in Level III, but airborne remote sensing and mapping will be substantially increased, and a marine seismic survey of preselected areas will commence using the leased survey ship. In addition, the upgrading of existing facilities and the design of new facilities will proceed.

Significant Impacts

- Reflects a slight increase in overall U.S. interests in Antarctica and Antarctic resources.
- Research program increased over Level III by maximum utilization of available support capability. Upgrading of existing facilities and design of new facilities will occur.

- Inter-continental and intra-continental airlift will increase to accommodate increase in number of scientific personnel.
- Inspection capability at foreign coastal and inland stations.
- International cooperation increased over Level III.
- Increased capability for environmental appraisal.
- Leased research ship will allow seismic surveys for resource assessment.

LEVEL V — LEADING PRESENCE

Costs (Thousands of dollars):

a)	Science	$ 11,000
b)	Support	49,000
	Total	$ 60,000

Major Elements:

McMurdo Station
South Pole Station
Siple Station
Palmer Station
New Station
2 USCG Icebreakers for 90 days each
R/S Hero
5 LC-130 ski aircraft
5 UHIN Helicopters
2 Twin Otters
1 P-3 aircraft (Seasonal augment)
1 Research Ship (Leased)
Charter cargo ships and charter aircraft
Islas Orcadas (100 days)

Program:

This level will allow for the expansion of research activities and the commencement of sophisticated remote sensing surveys required to adequately assess the earth and ocean resource potential of the antarctic. Airborne remote sensing and mapping will increase significantly. Pending construction of a new polar survey ship which will commence at this level, the utilization of available leased platforms will be employed more extensively than at Level IV.

The upgrading of facilities will continue. New research laboratories will be constructed at McMurdo, and a new research station will be started.

The air operations capability will be expanded with the purchase of two intermediate ski-equipped aircraft (e.g., Twin Otters).

A network of unmanned observatories will be placed at preselected sites throughout Antarctica.

Significant Impacts

- Reflects substantial increase in U.S. interests regarding all aspects of Antarctica.
- Significant increase in resource assessment.
- Research program further expanded over Levels III and IV by increase in remote sensing and mapping activities.
- Inter-continental and intra-continental airlift increased over Level IV to accommodate increase in airborne remote sensing program.
- Four (4) permanent stations (2 inland). Start design/construction of a new inland station.
- Inspection capability at foreign coastal and inland stations.
- Significant increase in environmental appraisal.

ALTERNATIVE PROGRAM LEVELS FOR U.S. ANTARCTIC OPERATIONS

	LEVEL I	LEVEL II	LEVEL III	LEVEL IV	LEVEL V
McMurdo		X	X	X	X
South Pole			X	X	X
Siple			X	X	X
Palmer		X	X	X	X
New Station					X(1)
Icebreakers	X	X	X	X	X
R/S Hero	X	X	X	X	X
LC-130s			X	X	X
UHIN Helos		X	X	X	X
Twin Otter (Leased)			X	X	X
Twin Otter					X
P-3 Aircraft (Leased)					X(2)
Charter cargo ships and aircraft		X	X	X	X
Islas Orcadas			X	X	X
Research Ship (Leased)				X	X
New Research Ship					X(1)

(1) Start design and procurement/construction.

(2) Aircraft augment for remote sensing

B. Management Options

Under the terms of the Antarctic Treaty, all signatories including those with territorial claims agreed that any other signatory could utilize any portion of the Antarctic Treaty area for scientific purposes. While the Treaty does not prohibit other activities in the Treaty area, except for nuclear weapons, the territorial claimants are not bound by the Treaty to accept presence for activities other than science. Therefore, to the extent that U.S. interests in Antarctica require a presence, the justification for such presence is the conduct of scientific investigations.

The 1970 study considered six alternative management plans:

Management/Funding Plans

From the 1970 NSC Study

Plan A - Pre-1972 arrangements; DOD management and budgeting of logistics, NSF for science.

Plan B - Same except DOD support costs fully reimbursed by NSF.

Plan C - NSF assigned overall program management and funding drawing on other agencies' support on a mutually acceptable reimbursable or nonreimbursable basis. (selected for decision in 1971).

Plan D - Transfer budget and funding for logistics to another (third) agency.

Plan E - NSF fund both science and logistics using commercial sources.

Plan F - Establish an Antarctic Commission to administer the total program.

Plan C was selected as the best alternative at that time. The implementation of this Plan required revision of OMB Circular A-51. NSF was to budget for both science and support programs to support university and federal agency research programs, to draw upon other government agencies for logistic support on a mutually acceptable reimbursable or nonreimbursable basis, and to use commercial support when cost effective.

NSF and DOD do not agree on the interpretation of NSDM 71 and 263 and on the intent of OMB Circular A-51 (Revised). The option selected in the 1970 study, Plan C, was a realistic and workable funding arrangement. However, over time, the practice has evolved into what essentially was Plan B. The 1970 decision was interpreted by OMB Circular A-51 (Revised) and required reimbursement for direct support costs previously identified in DOD budgets as Deep Freeze. However, since that time, indirect costs of support not previously indentified by DOD as being part of the Deep Freeze budget have been transferred to the NSF budget. Thus, all costs including such items as the off-season costs of personnel and rotation and training, costs of supporting the air base where the support squadron is homeported, etc., are being transferred to NSF. This transfer of all costs direct and indirect, associated with DOD logistic support for the U.S. Antarctic Program is justified by DOD on the basis that there is no DOD mission in Antarctica and, absent a directive to provide support, DOD assets committed to the U.S. Program will be eliminated. In addition, DOD considers that it is under constraints placed by the House Appropriations Committee not to use DOD funds for the Antarctic Program (See Attachment

Plan C and the enabling OMB Circular involved an initial budget base transfer of $19.3 million from DOD to NSF. In the ensuing years, additional support elements have been identified by DOD and approved by OMB as fully reimbursable by NSF. In FY 76, an addition of $3.5 million was made, and for FY 77, an additional $5.1 million will be transferred. In the meantime, the original $19.3 million has increased because of inflation to about $26.0 million despite significant reduction in the support services provided by DOD. The result of these events has been that the budget responsibility for the total U.S. program in Antarctica has become a disproportionate part of the budget for NSF. As a result of the shift in funding arrangements, NSF, a small civilian agency, finds itself in the anomalous position of being totally responsible for the budget justification and funding for Navy units.

While the present arrangements are unsatisfactory, nevertheless it is apparent that the capability to sustain and to be prepared to augment an active and influential presence in Antarctica requires the depth and flexibility of DOD resources. While it might be possible to restructure a portion of this level of capability and base it on commercial services, such restructuring would result in an unnecessary duplication of an already available national resource. The withdrawal of the DOD elements would have a detrimental effect on the U.S. presence in Antarctica.

The analysis and definition of six alternative management plans (Plans A through F) as presented in the 1970 review failed to foresee several crucial eventualities. First, the "mutually agreeable reimbursable or nonreimbursable" basis for NSF use of essential support components from other agencies has evolved to the extreme of full reimbursement to DOD. Clearly this was not the intent of the recommendation made by the 1970 study.. This has caused an untenable management anomaly in which a small civilian agency is totally responsible for budget justification and funding for an operational Navy squadron; a squadron that is required to respond to the administrative and operational control of a military chain of command.

At the same time, it would be equally infeasible for the NSF to fully function in the role of operational and administrative authority over a military unit. For example, this would have NSF prescribing the mission and tasks for the squadron and establishing criteria for manning training, employment, etc. While these elements are the justification for funding, they are inseparable from the military purview.

It should be noted that this full reimbursement situation is exactly that defined as Plan B in the 1970 study; a plan rejected in the report of that study.

Options

If Level I is selected as the appropriate level of U.S. activity in Antarctica, administration and funding problems will be inconsequential and no further decision is required. Under Level II, DOD involvement would not be so significant as to require decisions clarifying administrative and budgetary arrangements. Should it be concluded that either Level III, IV, or V is appropriate to protect and advance U.S. interests, decisions with respect to management and funding problems are required.

There are three options: NSF serves as the sole budgetary source of funds for all U.S. activities in Antarctica, funding for all antarctic support activities is borne by DOD and DOT, or DOD and DOT are required to bear a portion of the costs.

Option 1.

NSF is assigned the sole responsibility to manage and budget for all U.S. antarctic activities, and for overall national program management. DOD and DOT are required to provide

requested support on a cost reimbursable basis and to assure the continuing availability of essential components and the ability to augment them. Civilian contractors could be used when cost effective.

(At Level III: NSF $45.0M, DOD $0.0M, DOT $0.0M;
at Level IV: NSF $53.0M, DOD $0.0M, DOT $0.0M).

Discussion:

This option involves several problems that are at the core of the current management and budget dilemma, which in turn was the genesis of the current review. They are: a) The size of the Antarctic Program costs in relation to the basic science mission and total budget of the NSF; b) The requirement for a small civilian agency to justify the budget for operational Navy units; and c) The separation of responsibility to provide funding from the authority to exercise control over operations and safety.

It may be possible for the budget problem to be resolved by use of a separate appropriation that could be the subject of special oversight by appropriate entities of the Congress, OMB, and the National Science Foundation.

With respect to the other problems it is important to review the previous decision on management arrangements and the subsequent developments.

Moreover, this difficulty can be expected to lead to a further diminished role and possible exclusion of DOD participation, as indicated by the trend since 1971. Meanwhile, the capability to sustain and to be prepared to augment an active and influential presence in Antarctica requires the depth and flexibility of DOD resources in logistics, management, and related functions.

Option 2.

DOD and DOT are responsible for full funding and management of respective logistic support components and operations while NSF is responsible for funding and managing the science program. Overall program management is jointly conducted by a subgroup of the Antarctic Policy Group made up of representatives of the three assigned agencies.

(At Level III: NSF $5.0M, DOD $38.5M, DOT $1.5M;
at Level IV: NSF $9.0M, DOD $42.5M, DOT $1.5M).

Discussion:

Under this option, DOT would fund and manage all icebreaker support and associated operations as identified. DOD would have the assigned mission to provide and to manage and budget for all other logistics. NSF would have similar responsibility for science.

The budget problem would be solved under this option as each agency would have an assigned mission responsibility reflected in appropriate budget line items and requiring corresponding management and cost justification.

The program management subgroup of the APG would be composed of NSF, DOD, and DOT representatives. In order to assure continuity in the overall program and to continue to manifest scientific research as the principal public and international expression of U.S. interest in the Antarctic, NSF will chair this management subgroup.

Option 3.

NSF is responsible to fund and manage the science program. In addition, NSF is required to fund and manage a portion of the logistic support, DOT is responsible to fund and manage icebreaker support and associated operations as identified, and DOD will have the assigned mission to fund and manage the remainder of logistic support.

Suboption A. - NSF will fund all costs for operation of DOD and DOT units while deployed in the Antarctic Program and DOD will fund all other costs, except those assigned to DOT.

(At Level III: NSF $34.5M, DOD $9.0M, DOT $1.5M;
at Level IV: NSF $42.5M, DOD $9.0M, DOT $1.5M).

Suboption B. - NSF would reimburse DOD only for logistics directly in support of specific scientific projects.

(At Level III: NSF $6.1M, DOD $37.4M, DOT $1.5M;
at Level IV: NSF $10.1M, DOD $41.4M, DOT $1.5M).

Suboption C. - NSF would reimburse DOD for all costs by the Naval Support Force, Antarctica organization, and DOD would fully fund all operations and training by Antarctic Development Squadron Six (VXE-6).

(At Level III: NSF $32.7M, DOD $10.8M, DOT $1.5M;
at Level IV: NSF $40.2M, DOD $11.3M, DOT $1.5M).

Discussion:

As in all the other options, the APG would provide policy direction. The APG subgroup for exercise of program management would also be appropriate under this option and it would be chaired by the NSF.

Suboption A is a logical division of the program in that DOD would determine all criteria for manning levels, training, and operations of DOD units while not deployed to Antarctica. Program costs reimbursed by NSF would be only those for deployed operations in Antarctica.

Suboption B would tie NSF reimbursement only to logistics costs directly in support of specific science projects.

Suboption C offers an organizational division that is consonant with the full time management of antarctic program functions performed by the staff of the Naval Support Force.

Another variation could be generated by interchanging the two units in suboption C.

Because the line dividing costs in any of the suboptions under option 3 cannot be clear and unambiguous, selection of option 3 would require an additional elaboration by OMB of the precise definition of the costs chargeable to NSF and to DOD.

Appendix A

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JURIDICAL POSITIONS OF THE ANTARCTIC TREATY PARTIES

Seven countries had made territorial claims in Antarctica prior to signature of the Antarctic Treaty. These were Argentina, Australia, Chile, France, New Zealand, Norway, and the U.K. The claims of three of these countries, Argentina, Chile and the U.K., overlap and conflict in certain portions of Antarctica.

The United States has not recognized claims of territorial sovereignty asserted by any country over any portion of Antarctica. At the same time, the United States has not made a claim itself, and has consistently reserved all its basic historic rights in Antarctica.

All states with territorial claims in Antarctica, as well as the United States, the Soviet Union, Japan Belgium and South Africa, constitute the twelve signatory parties to the Antarctic Treaty. Article IV of the Antarctic Treaty sets aside the claims issue in the interest of international cooperation for the duration of the Treaty, or until 1995. Thus, for the purposes of activities under the Treaty, disputes and international discord which would otherwise result from the incompatible juridical positions of the interested states are avoided. For other activities, such as exploitation of mineral resources and the marine living resources of the Southern Ocean, it can be expected that the States concerned would react to such activities in accordance with their respective juridical positions on territorial claims, i.e., would seek to exclude others from conducting such activities in their claimed territory and adjacent maritime zones of coastal State competence.

The Antarctic Treaty is thus the framework within which the U.S. and others pursue their national interests in the Antarctic. Article I establishes that Antarctica will be used for peaceful purposes and prohibits any measures of a military nature, including establishing bases, conducting military maneuvers, weapons tests, or nuclear explosions of any kind, although the use of military personnel for logistical support and other peaceful purposes is permitted. Articles II and III establish freedom of scientific investigation in Antarctica and encourage international cooperation in the conduct thereof.

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Other provisions preserve the status of high seas around Antarctica, prohibit the dumping of nuclear waste within the Treaty area, establish the right of each Consultative Party to carry out inspections in all parts of the continent to verify compliance with, inter alia, the demilitarization provisions of Article I, and establish a consultative mechanism through which the twelve original signatory parties recommend measures in furtherance of the principles and objectives of the Treaty, including environmental protection measures.

~~CONFIDENTIAL~~

U.S. INTERESTS AND OBJECTIVES IN ANTARCTICA

Existing directives on U.S. Antarctic Policy provide adequate expression of U.S. interests in Antarctica applicable to the present and foreseeable future. These interests are summarized below under three headings: political and security, environmental and scientific, and economic.

1. Political and Security

-- Ensure that activities in Antarctica serve peaceful purposes only;

-- Prevent Antarctica from becoming a scene or object of international discord;

-- Continue the model of cooperative and harmonious international relations which has developed among interested states in relation to Antarctica.

-- Continue the demilitarized and nuclear explosion free status of Antarctica, including the ban on weapons tests and the guaranteee of full inspection rights established by the Antarctic Treaty;

-- Ensure continued U.S. access to all areas of Antarctica and the Southern Ocean for peaceful purposes, and, conversely, prevent any other state from denying such access to the U.S. or its nationals on the basis of territorial claims or otherwise;

-- Preserve any basis of a U.S. claim to territorial sovereignty that existed prior to the entry into force of the Antarctic Treaty.

2. Environmental and Scientific

-- Protect and maintain the sensitive and unique Antarctic environment, including the treaty prohibition on depositing nuclear waste in the Treaty area.

--Increase understanding of the role Antarctica scientific processes play in phenomena of global significance, including geological, geophysical, meteorological and oceanographic processes.

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-- Increase scientific understanding of global processes, the nature of which can be illuminated by evidence available in Antarctica as, for example, global dispersal patterns of man-introduced pollutants, and magnetospheric data.

-- Continue freedom of scientific investigation in Antarctica and cooperative dissemination of data gathered, in accordance with the Treaty.

-- Increase base-line data and information on marine and terrestial areas included within the Antarctic Treaty.

3. Economic

A. Living Resources

-- Increase knowledge of the living resource potential of Antarctica.

-- Preserve U.S. access to living resources, should we choose to commercially exploit certain species.

-- Conserve and preserve the marine birds, marine mammals and fisheries stocks of Antarctica and the Southern Ocean.

-- Participate in the development and implementation of management schemes for living resources, whether or not the United States engages in their commercial exploitation.

B. Non-Living Resources

-- Increase knowledge of the non-living resource potential of Antarctica.

-- Ensure non-discriminatory access by the United States to all areas of Antarctica except those areas specifically designated for other uses.

-- Ensure that any mineral resource exploration and exploitation is consistent with environmental considerations.

-- Facilitate an increase in the global supply of resources, through:

(i) defining property rights to Antarctica mineral resources.

(ii) ensuring reasonable conditions of investment consistent with U.S. interests, including environmental protection.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

CIRCULAR NO. A-51
Revised

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Planning and conduct of the United States program in Antarctica

1. Purpose. This Circular provides the basis for the planning, funding, management, and conduct of the United States program for Antarctica. This revised Circular replaces and rescinds Circular No. A-51, dated August 3, 1960.

2. Assignment of responsibility.

a. The Antarctic Policy Group shall continue to serve as the policy guidance body for the conduct of U.S. activities under the Antarctic Treaty. The Antarctic Policy Group will review each year's operations plan for Antarctica on a schedule coordinated with the budget cycle. Antarctic Policy Group membership shall consist of the Secretary of State (Chairman); the Director of the National Science Foundation; the Secretary of Defense; or their designees, and representatives of such other agencies as may be invited by the Chairman to participate on an ad hoc basis. The Interagency Antarctic Committee shall serve as a coordinating organization for the Antarctic Policy Group. Committee membership shall include representatives of all agencies having significant interests or program activities in Antarctica, as determined by the Policy Group. The Antarctic Policy Group may establish such additional subsidiary committees as may be necessary to facilitate the work of the Group.

b. The National Science Foundation shall:

(1) Be responsible for all aspects of developing and implementing an integrated U.S. program for Antarctica, except for responsibilities specifically assigned to other agencies by this Circular or by the Antarctic Policy Group.

(2) Fund the entire U.S. program in Antarctica, including logistic support activities, except where such

services are funded by the Department of Defense or the Department of Transportation in accordance with the provisions of c. and d. below, or by other agencies as determined by the Office of Management and Budget.

(3) Continue to fund university or other non-Federal research programs and all Federal agency scientific programs insofar as they pertain to Antarctica.

(4) Draw upon the logistic support capabilities of government agencies on a mutually agreed reimbursement or non-reimbursement basis, or use commercial or other support and management capabilities where these are determined to be cost effective.

(5) Designate a Senior United States Representative in Antarctica.

(6) Serve as the clearinghouse and source of information regarding the existence and location of Antarctic records, files, documents, and maps maintained within the various executive agencies and non-governmental organizations.

(7) In consultation with the Department of State, coordinate and arrange for the conduct of cooperative scientific programs with other nations participating in Antarctica research under the terms of the Antarctic Treaty.

c. The Department of Defense shall:

(1) Plan and carry out logistic support requested by the National Science Foundation, and such other programs and functions as may be requested by the Foundation or the Antarctic Policy Group, and in this connection assure the continuing availability, on a mutually acceptable reimbursement or non-reimbursement basis, of essential logistic support components.

(2) Fund and procure all aircraft required to provide the logistic support or perform other programs or functions requested pursuant to paragraph c.(1). Procure other essential logistic support components for the U.S. program for Antarctica on a mutually acceptable reimbursement or non-reimbursement basis.

(3) Through the Commander of the military support force, exercise operational management and control, including

the determination of safety and feasibility, over logistic support and other programs and functions in Antarctica assigned or requested pursuant to paragraph c.(1) above and make all reasonable efforts to provide the support necessary to fulfill the objectives of the U.S. Antarctic program.

d. The Department of Transportation shall fund icebreaker services requested by the National Science Foundation for the U.S. program in Antarctica through fiscal year 1972. Funding responsibilities for icebreaker services rendered in support of the U.S. Antarctic program after fiscal year 1972 shall be in accordance with arrangements mutually agreed upon by the Department of Transportation, the National Science Foundation, and the Office of Management and Budget. The Department of Transportation shall make all reasonable efforts to assure the availability of icebreaker services as requested by the National Science Foundation for the Antarctic program.

e. The Department of State is responsible for the formulation of foreign policy and the provision of foreign policy direction relating to the development and implementation of an integrated U.S. program for Antarctica; for the conduct of foreign relations regarding Antarctica; and for legal matters relating to the interpretation and implementation of the Antarctic Treaty.

3. Relations between the National Science Foundation and other organizations in carrying out an integrated U.S. program for Antarctica.

a. Executive Departments and agencies shall cooperate with the National Science Foundation in fulfilling its responsibilities for the U.S. Antarctic program, and shall appoint agency representatives to advisory committees as may be requested by the Director of the National Science Foundation.

b. Federal agencies interested in scientific or other activities for Antarctica, either to be conducted by their own staffs or by other agencies and personnel, should inform the National Science Foundation of their interests and of those aspects of proposed activities which might be included in the U.S. scientific program to be developed and funded by the Foundation. The Foundation shall make allocations to Federal agencies and grants and contracts to non-Federal organizations for scientific and logistic support activities

it deems necessary and appropriate to the conduct of the U.S. program in Antarctica.

c. The National Science Foundation shall advise the Department of Transportation, or other appropriate agencies, of the program plans for Antarctica in sufficient time and in sufficient detail so that the required supporting programs may be developed on an orderly basis. The Departments of Defense and Transportation, and other appropriate agencies shall in turn consult and collaborate with the National Science Foundation and keep it fully informed regarding all aspects of program support planning and operations for which they have been assigned responsibility. The Departments of Defense and Transportation or other appropriate agencies shall present to the National Science Foundation statements covering the actual and estimated costs of their support for the Antarctic Program. These statements shall cover the past, current and budget years and shall be submitted at an agreed time each year as necessary to meet the Federal budget requirements.

GEORGE P. SHULTZ
DIRECTOR

Appendix D

RECENT ANTARCTIC PROGRAM TRENDS OF ANTARCTIC TREATY NATIONS

Introduction

The programs of most of the Antarctic Treaty nations have been subject to close management and budgetary review during the last several years. Partly in response to this pressure, several -- and possibly all -- national programs have increasingly been justified on the basis of immediate and potential economic benefits to be derived. At the same time there has been a growing awareness that Antarctica may have the potential to partially satisfy the increasing world demands for food, energy, and possibly, hard mineral resources. Taken together, these factors have caused a detectable shift in Antarctic program priorities, and they may have prevented a deemphasis of Antarctic research.

The discussion that follows sketches the general status and trends of the Antarctic programs of selected countries. Separate, detailed, attention is given to activities and policies related to mineral exploration. The choice of countries examined (USSR, Argentina, Australia, and Chile) is somewhat arbitrary, but is meant to provide a general perspective on major developments.

The strong long-term upward trend in the scale of the Soviet program contrasts sharply with the overall picture (Figure 1 and 2). The USSR seems to have been the first country to recognize the economic potential of Antarctica and to have committed program resources accordingly.

Several countries not treated in detail -- France, Japan, and South Africa -- also conduct respectable Antarctic programs; the latter two carry out significant geological research. The United Kingdom also deserves comment; its program in the Antarctic Peninsula area is scientifically more productive, particularly in geology, than those of Argentina and Chile combined. Furthermore, British Antarctic planning documents as early as 1970 recognized the need to assess the area's food, and secondarily, mineral resources.

This study does not reveal that any country has yet conducted mineral exploration with purely commercial intent. Geological research has been basically scientific in nature, although several countries note that their goal is to lay the groundwork for future economic resource surveys. This later theme seems to be more in evidence in the last several years. The most dramatic increase in reconnaissance geological surveys occurred in the 1971-72 Soviet expedition when a four-year field program was begun around the Amery Ice Shelf in the Australian claimed territory. This field program is being transferred to an area within the Argentine and British claims during the present summer season.

Although there has been no commercial mineral activity, several countries have received inquiries from petroleum and mining firms seeking information on the Antarctic legal situation or actual licenses to operate within Antarctica. In all cases this commercial interest was reportedly discouraged. Most recently, a Texas exploration company has contacted several large petroleum companies and the governments of Australia, the USSR, and the United States to seek financial support for a circum-Antarctic seismic survey.

Figure 1

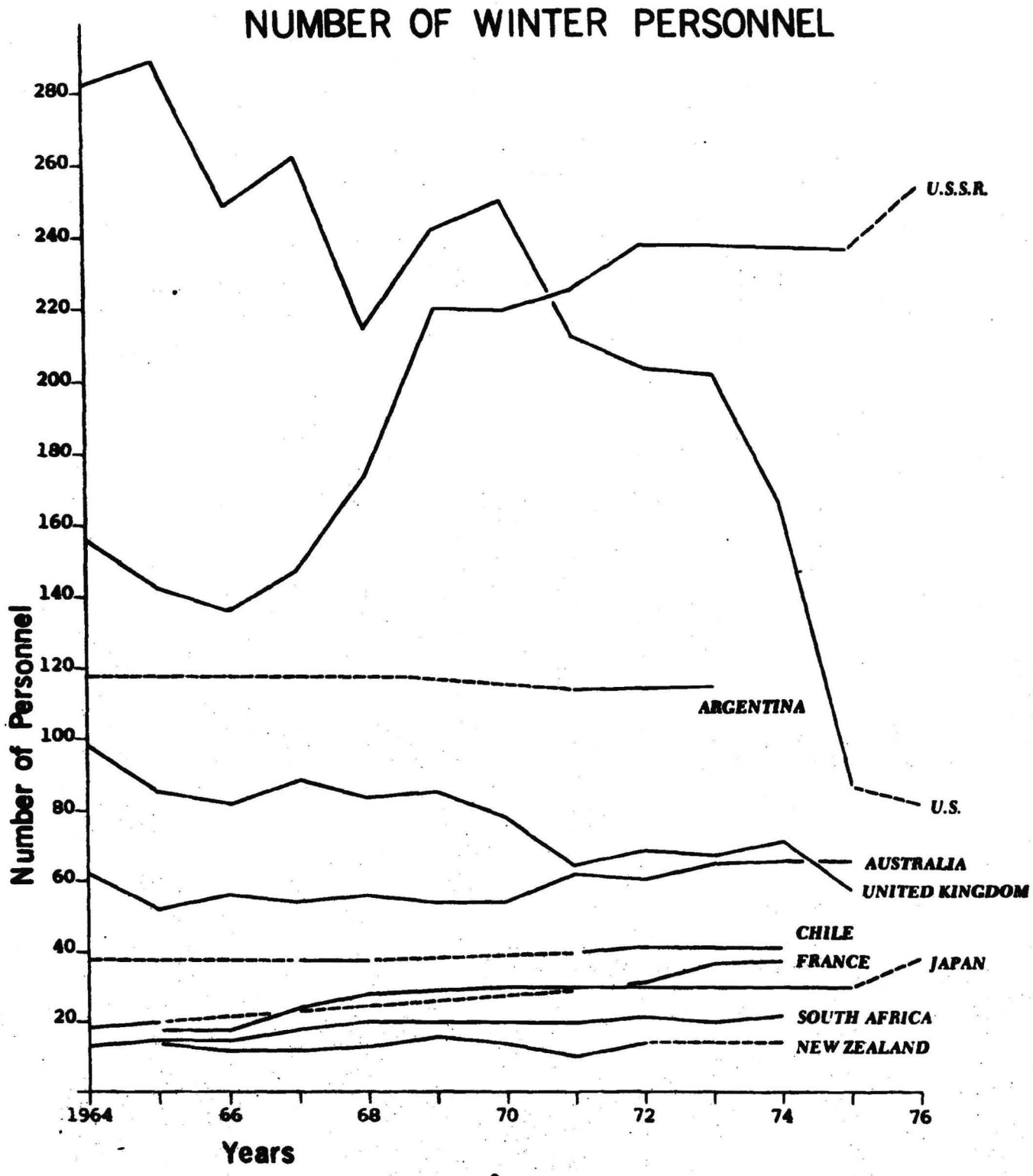
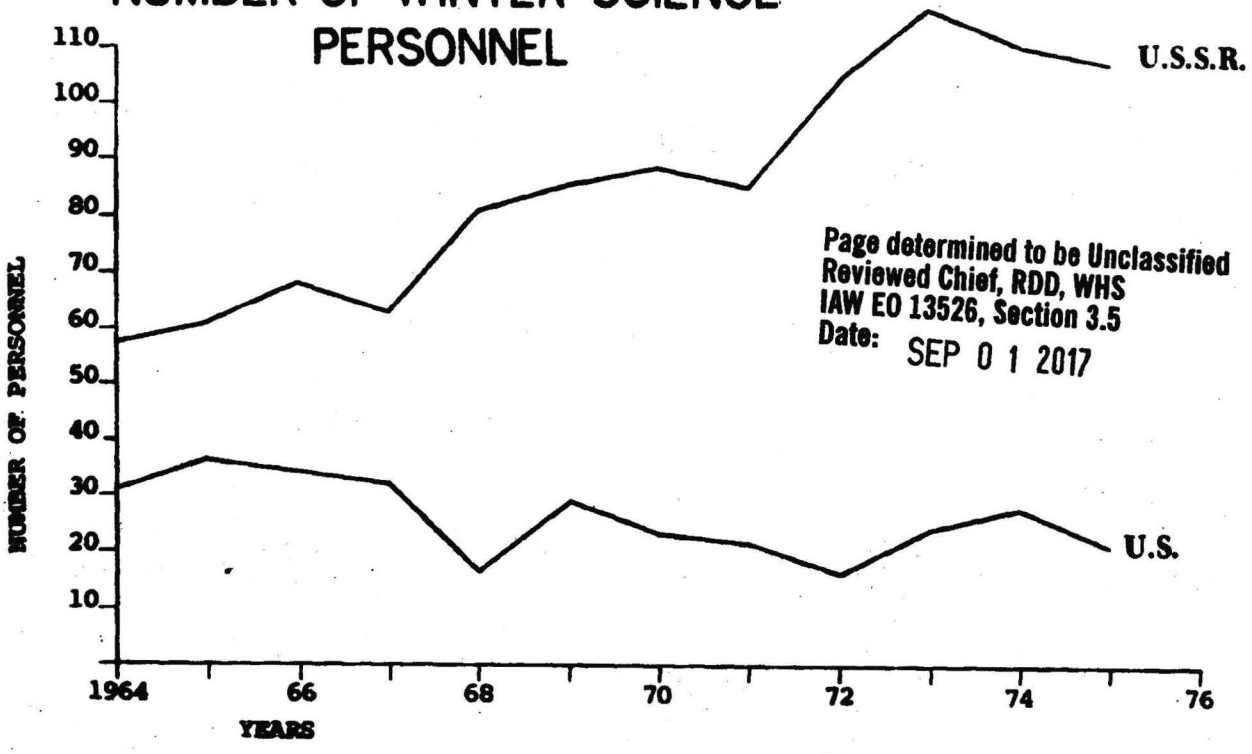
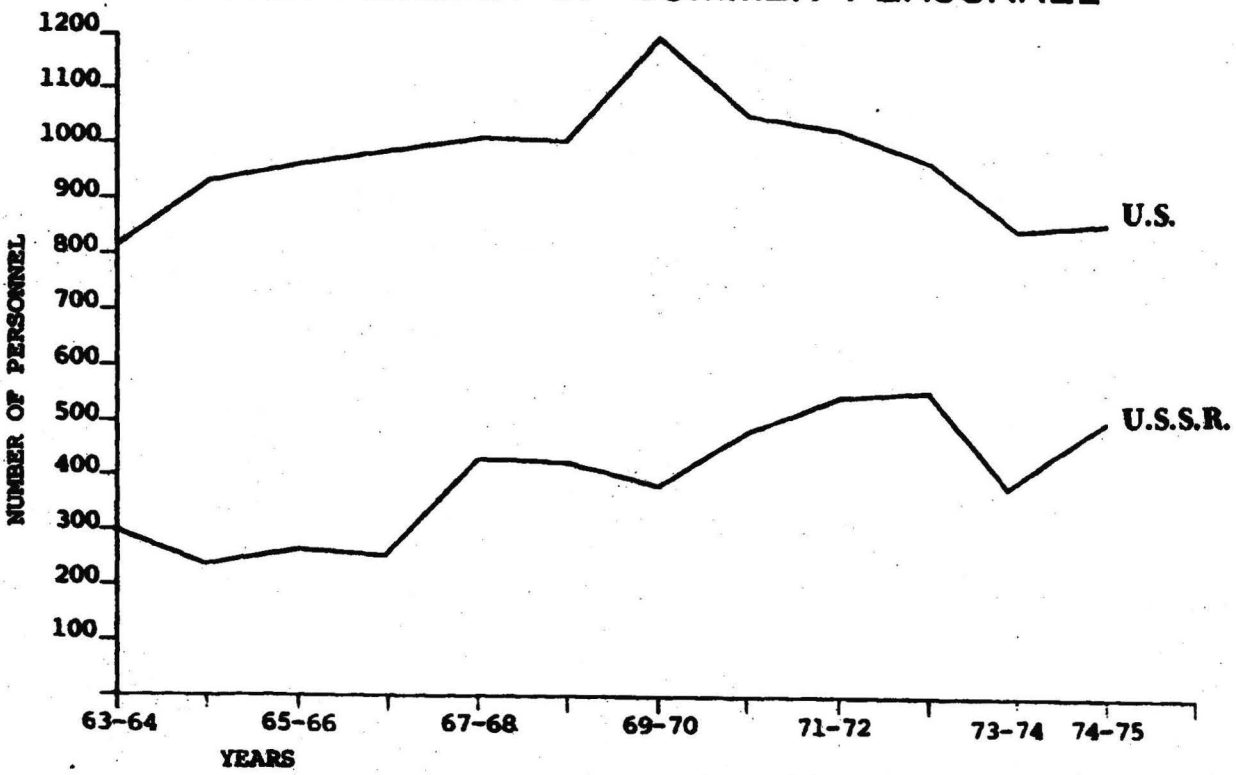


Figure 2

NUMBER OF WINTER SCIENCE PERSONNEL



AVERAGE NUMBER OF SUMMER PERSONNEL



USSR

Status and Trends

The USSR's Antarctic program appears to have stabilized and matured, following a period of uncertainty and then rapid expansion during the 1960's (Figures 1 and 2). Most of this past expansion as well as the present mix of scientific programs can be traced to decisions reached during a major policy study in 1966 and out of refinements based on annual reviews. Published program objectives emphasize research that will yield practical benefits, particularly from marine and mineral resources, and from meteorological and geophysical forecasting.

Soviet expeditions are sponsored by an Interdepartmental Committee of the Academy of Sciences. The primary organizational and research role is performed by the Arctic and Antarctic Scientific Research Institute (AANII) under the Hydrometeorological Service. AANII's Antarctic budget is believed to be about $US 10 million. Additional research and logistic support is provided by several dozen other organizations from government ministries and the Academy of Sciences. These later organizations apparently absorb all or part of the direct costs of air transportation, mapping, geology, rocket sounding, aerology, marine biology, oceanography, satellite geodesy, and a number of other programs.

The twenty-first Soviet Antarctic Expedition (SAE), 1975-76, is expected to be slightly larger in size but similar in scope to the last four expeditions. For the sixth consecutive year the USSR will probably man six year-round stations. A new summer-only station will also be established on the Filchner Ice Shelf to support field work in the surrounding area. It replaces a similar camp that was operated for four years on the Amery Ice Shelf. Attempts to open a new station, Russkaya, on the coast of Marie Byrd Land have been at least temporarily shelved (see map, page 9).

New construction and the rebuilding of old facilities is underway or planned for all of the year-round Soviet stations. Bellingshausen, at the tip of the Antarctic Peninsula, has been more than doubled in size during the last few years. At both

Mirnyy and Vostok most of the older, obsolete buildings are being replaced. Furthermore, Novolazarevskaya station is expected to be completely relocated and rebuilt at a new location in coming years.

Ship and aircraft capabilities are also being improved. This year the USSR's Arctic and Antarctic Scientific Research Institute (AANII) has acquired a new icebreaking research/transport ship, with a displacement of 14,000 tons, to replace the old flagship of its Antarctic operations. Two other large research/passenger ships, strengthened for ice operations, have been obtained since 1967. Rounding out the fleet are two rented cargo ships.

A notable weakness in the Soviet program is the lack of long-range air transport capability to shuttle personnel to and from the Continent. At present some expedition scientists are flown as far as Australia where they are picked up by ship for the final leg of the trip. The Soviets have announced that they plan to eliminate this problem, and reportedly are building an airstrip near Molodezhnaya for heavy aircraft. They have also shown interest in purchasing C-130 transport aircraft from the US to meet this need.

Mineral Interests

The USSR has made no attempt to exploit Antarctica's mineral resources to date, and has proposed that all "Antarctic countries" confine themselves in the coming decade to basic geological research. The Soviets have called for a moratorium

on the issuance of commercial prospecting licenses throughout the continent and they seem particularly eager to delay or prevent Western oil and gas exploration on the continental shelf. Their longer-range intent is indicated, however, by the magnitude of their geological exploration program, the largest and most explicitly resource-oriented in Antarctica.

Geological research, including as an explicit goal the discovery of mineral resources has been an important component of each of the Soviet Antarctic Expeditions. The current five-year plan, 1971-75, states that the present geological task is to map the continent on the basis of geological, gravimetric, and magnetic surveys in order to determine its mineral-resource potential.

Commentaries by leading Soviet geologists almost invariably refer to Antarctica's rich mineral resources and to the inevitability of eventual exploitation. At the conclusion of a recent expedition, the leading Soviet Antarctic geologist announced the discovery of a very large and high quality iron ore deposit, which he claimed "confirms forecasts about the potential mineral wealth of the continent." He also stated that the 30-meter-thick ice overburden "is no obstacle to modern mining technology." Remarks such as these, however, are frequently tempered by estimates that commercial exploitation will not begin for another 10 or 20 years.

During their 20 annual expeditions the Soviets have carried out geological and geophysical surveys over most of the major exposed rock areas of East Antarctica, particularly in the

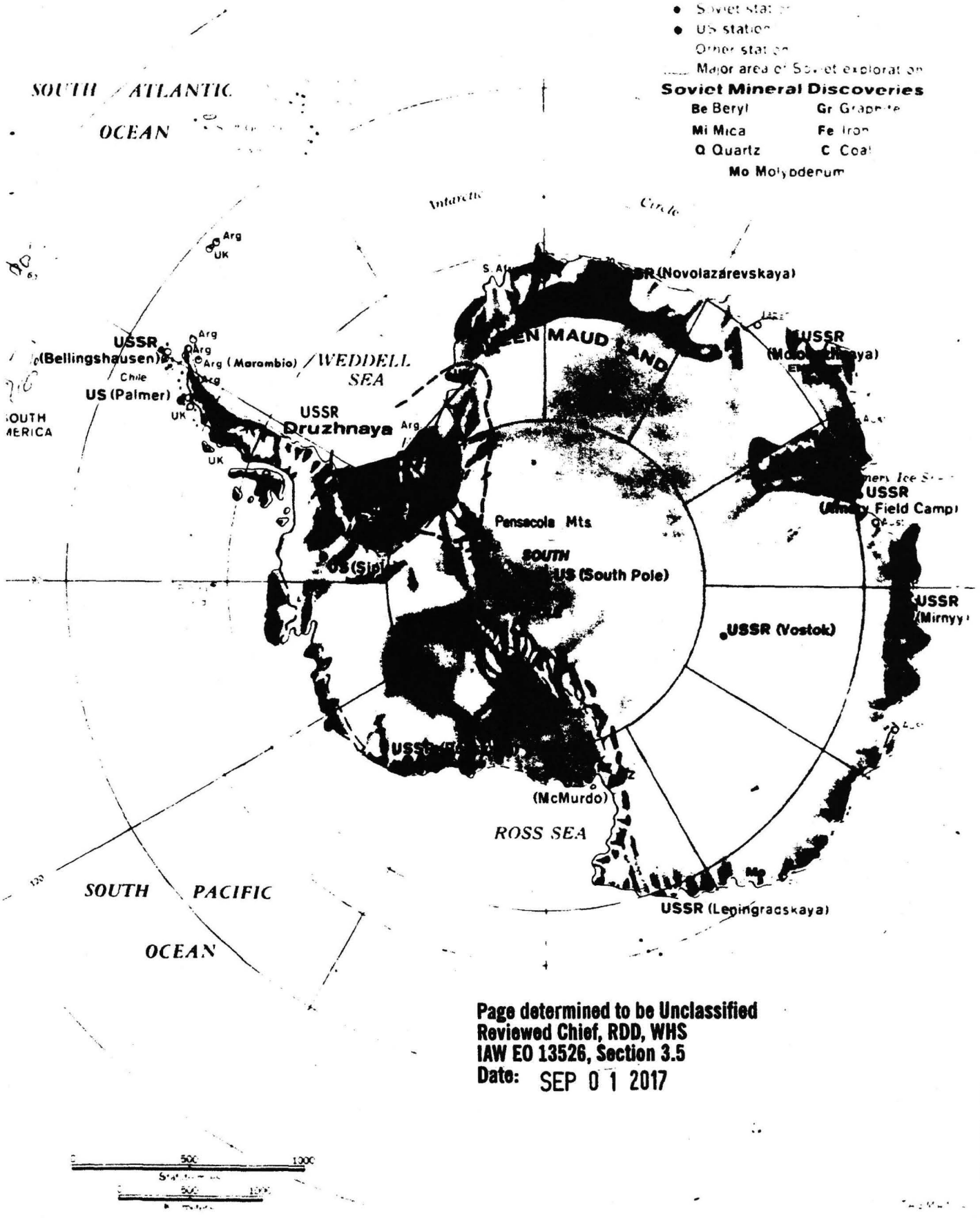
mountains of Queen Maud Land and Enderby Land and around the Amery Ice Shelf (see map, following page). In addition, by the assignment of Soviet scientists to the programs of other nations and the recent construction of new stations, the Soviets have had the opportunity to geologically assess areas throughout Antarctica.

Soviet surveys have identified a number of mineral occurrences and deposits in East Antarctica, but none of them have been of high enough quantity or quality to overcome the projected high cost of extraction. The most significant of these occurrences, which range from minute concentrations of molybdenum to large deposits of coal and iron, are located on the map. Perhaps the most noteworthy of the resources thus far identified is the iron ore deposit south of the Amery Ice Shelf; it extends 120 kilometers, measures over 1,000 meters in thickness, and contains up to 42 percent iron.

Geological research at sea has also been carried out during nearly every expedition. As a result perhaps as many as 1,000 bottom samples and cores and some tens of thousands of kilometers of magnetic, gravity, and seismic profiles along ship tracks to the continent and along its coasts have been acquired. The Soviets have also provided funding to enable them to participate in deep drilling aboard the US ship Glomar Challenger.

Before 1971 the Soviet geological program on land was carried out by detachments usually comprised of four to ten geologists and geographers, supported by a flight crew and two

Soviet Stations and Exploration in Antarctica



or three small aircraft. The geological work was closely integrated with seismographic, gravimetric, aerial photographic, geodetic, and aerial magnetic and mapping surveys.

Under the current five-year plan the scope of this activity has been considerably expanded. During the last four expeditions the Soviets operated a large field camp on the edge of the Amery Ice Shelf. Manned by a party of over 100 aviators, geologists, geophysicists, and mapping personnel, the Amery camp and 5 to 10 outstations served as a base for geological-geophysical survey teams working in an area of about 300,000 km^2. Aircraft assigned to the field party usually included two IL-14's, two AN-2's, and two large MI-8 helicopters.

Published reports on the first two of these expeditions note the coverage of more than 100,000 km^2 by aerial photography and aerial magnetic surveys. Aerial magnetic surveys totaled about 40,000 kilometers of flight lines. Ground magnetic and gravity measurements were made at more than 200 points. One expedition completed a 400-mile seismic traverse, with 16 stations.

Detailed findings of these reconnaissance surveys have not yet been published, but summary reports note the discovery of a number of minerals, including iron, coal, berylium, and copper sulfide. Most of the publicity has been given to the large iron ore deposits on the Amery Ice Shelf, mentioned above. This year (1975-76) the Soviets will move their summer field program to Druzhnaya, a base to be established on the

edge of the Filchner Ice Shelf along the Weddell Sea. Pre-expedition announcements suggest that the operation will be modeled after the one conducted from the Amery base. The proposed program is expected to continue for five years, during which all of the area within about 500 kilometers of Druzhnaya, including the Pensacola Mountains, will be surveyed.

The Pensacola Mountains have been identified by US geologists as the most promising location for hard minerals in Antarctica. The Soviet geologist who will head Druzhnaya Base claims that the work area is one of the "planet's richest geological provinces." Parts of it, he states, are analogous to ore-bearing zones of Siberia, South Africa, and the South American mountains, and the Weddell Sea continental shelf, he believes, is a potential oil and gas reservoir. In an attempt to negate any suggestion of Soviet commerical intent, he comments that "the expedition does not have commercialaims," but instead will be "a scientific study of the continent, designed to protect mineral resources for future generations."

ARGENTINA

Status and Trends

Argentina operates six year-round and two seasonal stations in its claimed Antarctic territory. During the last 10 years two stations have been closed and two new stations opened. The number of personnel at the bases has also apparently remained fairly stable, although detailed information about recent expeditions is not available because Argentina has failed to provide required activity reports since 1973.

All Argentine Antarctic activities are controlled and supported by the military services, with civilian participation in science projects. Although the main program emphasis seems to be effective territorial occupation, activities at the stations and on summer field expeditions encompass the normal range of Antarctic research subjects and include meteorology, geophysics, glaciology, geology, mapping, and oceanography. Oceanographic capabilities were enhanced last year by transfer of the US research ship Eltanin to the Argentine Navy for Antarctic operations.

Argentina's logistic capabilities are extensive in the Peninsula area. At least four helicopters and five small, fixed-wing aircraft operate from six of the research stations and from two transport ships. Continued improvement of a large airfield that was started at Marambio in 1969 allows wheeled C-130 transports to operate in the Argentine Antarctic year-round.

Political and public attention to Antarctica within Argentina has noticeably increased in the last few years. Government officials and the press have exhibited apprehension over the Antarctic resource issue and Argentina's ability to maintain its claimed sovereign rights in the area. In 1974 Argentina proclaimed the 22nd of February of each year as the Day of the Argentine Antarctic. Later that year, in December, President Isabel Peron personally flew over the Antarctic and made a strong speech reaffirming Argentina's sovereignty in its sector.

Mineral Interests

Argentine expeditions have traditionally included participation of a few geologists for general reconnaissance work on the Antarctic Peninsula and surrounding islands. The last available Argentine information report indicated that regional geological studies were being expanded in 1973.

Late in 1974 an agreement was signed between the Government's Under Secretary for Minerals and several Antarctic organizations, calling for the Economy Ministry to finance geological studies on the Antarctic Peninsula. The work is intended to identify areas for more detailed mineral prospecting.

AUSTRALIA

Status and Trends

Australia's research program is carried out at three stations that have been in continuous operation since the mid-1950's. One station was completely rebuilt in 1969 and another is currently being reconstructed. Scientific activity at stations conforms to the traditional Antarctic emphasis on weather and upper atmosphere physics. Summer field activities center around geology, glaciology, and mapping.

Australia's role in Antarctica is presently the subject of some debate within the Government and the scientific community. Controversy has focused on administrative arrangements and specific program goals, as both the Government and the opposition parties believe Australia's long-term national interest requires an active scientific program.

Annual appropriations (about $4.7 million, US) have remained nearly static for the last several years. The resulting toll of inflation has prompted consideration being given to closing one of the stations. The recent surge in national and international interest in Antarctica suggests, however, that funding is more likely to be increased.

Mineral Interests

Between 1969 and 1974, Australia conducted a modest, but respectable, geological reconnaissance and mapping program in the Prince Charles Mountains, west of Amery Ice Shelf. Each year a field party consisting of about 15 to 25 persons was dispatched; typically it included three or four geologists, a geophysicist, three or four surveyors, and seven or eight aviators. Three

helicopters provided field transportation and a small fixed-wing aircraft was used for aerial survey work. In addition to collecting rock samples and establishing control surveys, the field parties made five to ten geomagnetic and gravity observations each season. On the basis of data collected in this program, a geological monograph and 1:250,000 geological maps are being prepared. Published reports do not indicate that minerals with economic potential were either searched for or found.

This year (1975-76) the geological field program is being shifted west into Enderby Land. Apparently it will continue there for at least several years at approximately the scale of previous work in the Prince Charles Mountains.

Australia has a negligible capability for geological or geophysical surveys offshore in Antarctica. Its two ships, both resupply vessels, are equipped only to take depth soundings.

CHILE

Status and Trends

Chile operates three year-round and several summer stations within its claimed territory on the Antarctic Peninsula. The total effort, in terms of active stations, number of wintering and seasonal personnel, and ship support, has apparently not changed appreciably in the last 10 years. The Navy, Air Force, and Army each operate a station, with the Navy providing all logistic support. Scientific activities, other than those associated with meteorology and hydrography, are planned and conducted by the Chilean Antarctic Institute, which supports about 20 scientists and technicians on the peninsula during the summer season.

The total Chilean Antarctic budget was approximately $US 5.8 million in 1971; only $US 80,000 was allocated to the Antarctic Institute science program. At that time a new five-year plan called for a tripling of science activities, in support of pure science, and later, economic prospecting. It is not possible to determine whether the proposed increases were approved, because Chile has not met its obligations to exchange Antarctic information since 1973.

Mineral Interests

Chile has carried out only minor geological research in Antarctica, almost exclusively in the vicinity of its stations around the tip of the Antarctic Peninsula. Emphasis has been on improving the understanding of regional geology. In a typical season 2 to 3 geologists have collected rock samples in the area.

The current five-year plan, for 1972-1976, called for completion of the basic scientific survey and geological mapping of the South Shetland Islands by 1974. In following years economic geology groups would evaluate the mineral resources of that area, and the Antarctic Peninsula as well. According to the plan, mineral prospecting was to become the main scientific interest by 1975 or 1976, but information is lacking on current activities.

~~CONFIDENTIAL~~

July 10, 1970

Annex 1

1 WIC
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National Security Decision Memorandum 71

TO: The Secretary of State
The Secretary of Defense
The Secretary of Commerce
The Secretary of Interior
The Secretary of Transportation
The Director, Arms Control and Disarmament Agency
The Director, Office of Management and Budget
The Director of Central Intelligence
The Director, National Science Foundation
The Director, Office of Science and Technology

SUBJECT: United States Antarctic Policy and Program

The President has reviewed the memorandum forwarded by the Chairman of the NSC Under Secretaries Committee on May 28, 1970, which contains a statement of objectives in Antarctica and recommendations regarding appropriate program levels and responsibility for management of the program.

Considering United States interests in Antarctica, the President has decided that the Antarctic program should be continued at a level which maintains an active and influential United States presence in Antarctica and which is responsive to United States scientific, economic and political objectives. The President has noted and, subject to normal budget review processes, approved the estimated annual budget level ranging from $29 - $34 million.

Noting the request of the Department of Defense regarding budgeting responsibility, the President hereby directs preparation for the orderly and efficient transfer of the program to the National Science Foundation whereby the Foundation shall:

1. Budget for the entire United States national program in Antarctica, including the funding of logistic support activities;

2. Continue to fund university research and federal agency programs related to Antarctica;

~~CONFIDENTIAL~~

3. Draw upon logistic support capabilities of government agencies on a mutually acceptable reimbursement or non-reimbursement basis; and

4. Use commercial support and management facilities where these are determined to be cost effective.

In undertaking the transfer of responsibility, it is understood that an increase in the National Science Foundation budget is not intended to cause a net increase in the total Federal budget since the Foundation will be assuming budget items for logistic support currently carried by the Department of Defense and the Department of Transportation.

Present program responsibilities assigned under Bureau of the Budget Circular A-51 shall remain in effect during the course of the transfer of responsibilities and, subject to consultations, the Fiscal Year 1972 budget shall serve as the target for transfer of budget responsibility to the National Science Foundation. To insure the orderly transfer of program responsibilities, changes in responsibilities for operational management and safety of operations shall be coordinated through the Antarctic Policy Group.

In the course of the transfer of responsibilities, the Department of Defense shall maintain the Fiscal Year 1970 level of Antarctic logistic support. The Department of Defense shall thereafter assure the availability, on a mutually acceptable reimbursement or non-reimbursement basis, of essential logistic support components.

The President has instructed that the Director of the National Science Foundation and the Office of Management and Budget, in coordination with other agencies and offices where necessary, hold appropriate discussions with the principal Members of Congress concerned and submit a progress report no later than June 21, 1971, for his consideration.

Henry A. Kissinger

cc: The Chairman, Joint Chiefs of Staff

Annex 2

7414035

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

~~CONFIDENTIAL/XGDS(3)~~ July 29, 1974

National Security Decision Memorandum 263

TO: The Secretary of the Treasury
The Secretary of Defense
The Secretary of the Interior
The Secretary of Commerce
The Deputy Secretary of State
The Director of Central Intelligence
The Director, Federal Energy Administration
The Director, National Science Foundation
The Chairman, Council on Environmental Quality

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/P (Action)
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SUBJECT: U.S. Policy on Antarctic Mineral Resources

The President has reviewed the NSC Under Secretaries Committee (USC) report regarding United States policy on Antarctic mineral resources, as forwarded by the USC Chairman on April 26, 1974.

The President has approved the attached statement of United States policy, and has authorized preliminary consultations with other Parties to the Antarctic Treaty to gain acceptance of the idea that there should be an internationally agreed approach to the issues of commercial exploration for and exploitation of Antarctic mineral resources.

These exploratory consultations should be designed so as to preserve the U.S. interests detailed in the USC report and in no way prejudice any options regarding the possible nature and scope of international mechanisms, understandings, or agreements pertaining to Antarctic mineral resources. The Department of State, in coordination with the other interested agencies, will be responsible for the conduct of these consultations.

In addition, the President has directed the Under Secretaries Committee to conduct a prompt analysis of what the United States might wish to seek or to avoid in any later discussions on establishing an internationally agreed approach.

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The quality of the following image(s) is consistent with the source document(s)

A report on the preliminary consultations, and a proposed action program outlining what diplomatic and political steps might be taken to accomplish the substantive recommendations should be forwarded for the President's consideration prior to the undertaking of any further actions in this area.

Henry A. Kissinger

Attachment

cc: Assistant to the President for International Economic Policy
Counselor to the President for Economic Policy

~~CONFIDENTIAL/GDS~~

Statement of United States Policy on Antarctic Mineral Resources

It is the objective of the United States:

-- To ensure that, if undertaken, commercial exploration and exploitation in Antarctica are carried out in a manner that does not disrupt the implementation of the Antarctic Treaty as long as it is in effect, and does not become a cause for significant international discord.

-- To ensure that any exploitation of Antarctic mineral resources is compatible with environmental considerations and with United States obligations under the Antarctic Treaty.

-- To gain acceptance of the concept that there should be an internationally agreed approach for any commercial exploration and exploitation of Antarctic mineral resources, which should at the same time (a) permit free access by the U.S. and other nations for exploitation purposes to any part of the Antarctic Treaty area except those areas specifically designated for other uses; (b) be without prejudice to and appropriately compatible with United States law of the sea interests; (c) provide for the protection of the Antarctic environment; and (d) preserve the rights under the Antarctic Treaty of scientific research.

During the time that the United States is seeking an internationally agreed approach, the United States will oppose actions by any nation with the purpose of commercial exploration and exploitation of Antarctic mineral resources, and will urge other nations to join the U.S. in such an interim policy. At the same time, however, the United States will continue as feasible and appropriate within the present scientific program to determine the mineral resource potential of Antarctica more accurately. (This position will be reevaluated periodically in light of the progress of any negotiations, actions by other countries, and continuing economic and technological assessments of United States and foreign capabilities to be provided by a Subcommittee of the Under Secretaries Committee.)

The United States will continue to maintain and be prepared to augment as appropriate an active and influential presence in Antarctica in keeping with its present and future scientific, economic (including resource potential), political, and security interests in Antarctica.

Annex 3

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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May 20, 1975

MEMORANDUM FOR

OPIES TO:
F(CWM)
/P(ACTION)

CHAIRMAN, NSC UNDER SECRETARIES COMMITTEE

SUBJECT: U.S. Policy on Antarctic Mineral Resources

The President has reviewed your memorandum of March 10, 1975, regarding U.S. Policy on Antarctic Mineral Resources, and has noted the views of the various agencies that contributed to the report. The President has decided that:

1. We should work with our Antarctic Treaty partners toward an internationally agreed arrangement for dealing with commercial exploration and exploitation of the mineral resources of the Antarctic, based on the principles established in NSDM 263. We should explore possible mechanisms including consideration of a new decision-making procedure which, inter alia, avoids the present rule of unanimity.

2. We should look toward a special regime for offshore mineral resources of the Antarctic, however, this could be reconsidered if warranted by developments in the Law of the Sea Conference or by discussions with our Antarctic Treaty partners.

3. We should continue our present interim policy of urging nations to refrain from commercial exploration and exploitation, pending an internationally agreed approach. Our interim policy would be reexamined if other parties to the Antarctic Treaty were to undertake precipitate action or if the prospects for arriving at an internationally agreed approach were determined to be remote.

4. The action plan called for in NSDM 263, including appropriate tactical positions, should be developed by the Antarctic Policy Group. The Group should also make more detailed examinations of the principles and alternative organizational and legal approaches applicable to a possible internationally agreed arrangement, the environmental consequences of exploration and exploitation and mechanisms for minimizing such consequences, U.S. interests in the living resources in Antarctic waters, and other relevant matters. For these

purposes, the Antarctic Policy Group should include representatives of all interested agencies. Major unresolved policy issues should be reviewed by the Under Secretaries Committee.

Following the June Antarctic Treaty Consultative Meeting and other appropriate consultations, a report should be submitted by the USC to the President on the prospects for reaching an acceptable agreement and recommendations for next steps.

Henry A. Kissinger

Annex 4

National Security Council Study
U.S. Program in Antarctica

Summary and Recommendations

Background

The President has directed the Antarctic Policy Group to prepare a study of current and long-term interests, objectives and programs in Antarctica. The directive states that the study should: 1) Consider and analyze the major issues; 2) Consider alternative programs and related support activities; 3) Examine administrative arrangements for the U.S. Antarctic Program; and, 4) recommend any changes in the assignment of organizational responsibility which will benefit the program.

This study seeks to analyze the issues related to U.S. interests and objectives in Antarctica as well as the implications for U.S. policies and programs. It also offers recommendations regarding an appropriate program level and suitable administrative and support arrangements.

United States policy for Antarctica was last reviewed at the National Security level in 1960.

U.S. Policy With Regard to Antarctica

Long Range U.S. Objectives and Interests: In view of the size of Antarctica, its influence upon the earth's environment, the provisions of the Antarctic Treaty and the advantages to the United States of its continued peaceful development, long-term U.S. objectives and interests in the Antarctic area can be summarized as follows:

Maintain the viability of the Antarctic Treaty through the preservation of harmonious international relations in Antarctica;

Share in any benefit to be derived from Antarctica and prevent any use of the area which is against United States interests and prejudicial to the stability and peace of the region;

Encourage the peaceful development of Antarctica through scientific research and appropriate commercial and economic activities;

Preserve freedom of access and free conduct of any peaceful activity under established uniform rules, including the conservation and regulation of exploration and exploitation of natural and living resources;

Maintain a suitable presence in Antarctica which continues to provide leadership in the development of the area and furthers the development of a permanent international arrangement for Antarctica, or one

which could be used as a basis for making concrete territorial claims in the event the Antarctic Treaty should become ineffective;

Protect such rights as the United States may have acquired by discovery, exploration, occupation, development and use of the area prior to the entry into force of the Antarctic Treaty, and assure the continued right of the United States to discover, occupy, develop and use the area under terms of the Antarctic Treaty;

Promote the free exchange of information about plans and activities including data and results of such activities.

Immediate U.S. Objectives: Implement the Antarctic Treaty including the exercise of the right of inspection, scientific cooperation, and exchange of information;

Develop through the Treaty Consultative process suitable rules to govern all kinds of activity in Antarctica with particular emphasis on conservation, jurisdiction and economic exploitation;

Develop parallel and complementary international agreements for the conservation and regulation of the exploitation of resources in the high seas south of 60° south latitude;

Continue scientific investigation of Antarctica, and the uses to which Antarctica may be put, for the benefit of the U.S. and mankind, emphasizing the influence of the area upon worldwide environmental effects, the presence and extent of living and non-living resources, and Antarctica as a laboratory to monitor environmental changes, long and short term, natural and man made;

Continue to encourage scientific cooperation between Antarctic Treaty nations and the specialized agencies of the U.N. and with non-governmental scientific associations and organizations;

Encourage U.S. commercial and economic activities in Antarctica which are consistent with the provisions of the Antarctic Treaty and complement other U.S. objectives;

Improve the present methods of accountability in the reporting of plans and activities by Treaty signatories and acceding countries;

Establish laws and regulations for exercising jurisdiction over U.S. nationals and their activities in Antarctica.

Extent of Geographic Interest in Antarctica and Nature of Program: United States objectives encompass the entire region south of 60° south latitude. However, U.S. activities concentrate on the area lying between 30° west longitude westward to 150° east longitude with additional scientific requirements in Queen Maud Land, Wilkes Land, and in the oceans surrounding Antarctica.

Scientific research continues for the foreseeable future to be the principal U.S. activity. Antarctic research up to the present has developed a datum of basic environmental findings of worldwide as well as regional significance. It offers a unique yardstick for measuring worldwide environmental changes. It affords a basis for logical advancement of research into studies related to global monitoring of environmental conditions and trends and to the assessment of resource potential for possible future development. Related activities, including those of U.S. commercial enterprises, are encouraged and accommodated insofar as they are compatible with scientific activities and objectives and so long as they are consistent with the provisions of the Antarctic Treaty and its development. In all activities, and particularly scientific activities, the United States fosters international cooperation with other countries active in Antarctica, including the use of U.S. logistic capabilities, as available, to support scientific programs of mutual interest and other activities determined to be in the national interest. The United States likewise encourages other nations to contribute logistic support to cooperative programs.

The Functioning of the Antarctic Treaty: The Antarctic Treaty, which is the result of an initiative taken by the United States, was signed in Washington, D.C., on December 1, 1959 by representatives of Argentina, Australia, Belgium, Chile, France, Great Britain, Japan, New Zealand, Norway, South Africa, the Union of Soviet Socialist Republics, and the United States. It entered into force on June 23, 1961. After the expiration of thirty years from the date of entry into force (1991), the Treaty may be reviewed at the request of any contracting party and modifications and amendments to the Treaty may be offered at that time.

The Treaty provides that the Antarctic shall be used for peaceful purposes, and that military personnel or equipment may be used for scientific research or any other peaceful purpose. The Treaty further provides for a unilateral inspection system to determine compliance with the Treaty. The Treaty calls for free access to the area for scientific purposes, for the free exchange of data, results and information about planned activities, and the exchange of scientists between expeditions.

The Treaty freezes the question of previously asserted rights and claims to territorial sovereignty in Antarctica, and provides that no acts or activities carried out while the Treaty is in force will hereafter constitute a basis for a claim. (Neither the U.S. nor the U.S.S.R. has asserted any claim in Antarctica to territorial sovereignty, but claims by seven other nations include 80% of the physical territory in Antarctica.) The Treaty prohibits nuclear explosions and the disposal of radioactive waste material in Antarctica. The Treaty further provides a means by which the signatory parties and any other parties conducting substantial, independent activities in Antarctica may meet together to consult on problems of mutual concern and recommend measures to governments by which to further the principles and purposes of the Treaty.

The Antarctic Treaty has accomplished several of the principal long term U.S. objectives in Antarctica and has served U.S. interests well in the last ten years. It has become a landmark in modern treaty-making by the channeling of regional conflicts into productive international research activity under a system of free inspection. It has served as a model for the Space Treaty, the Nuclear Non-Proliferation Treaty and the Test Ban Treaty. However, several critical issues including the exploration and exploitation of mineral resources and matters related to jurisdiction over persons and activities in Antarctica lie before the Treaty parties for consideration. These issues are the core of the basic disagreement between the nations which claim territorial sovereignty over certain portions of Antarctica and those which do not recognize such sovereignty. The effectiveness of the Treaty will be gauged by the ability of the Treaty parties to resolve these issues. An amicable solution of these problems is a long-term United States objective. Presence and continuing U.S. leadership will be required to achieve this objective.

Furthermore, as the Antarctic Treaty requires the unanimity of all signatory parties to consult together and to recommend measures in furtherance of the Treaty, the U.S. encourages other signatory countries to continue their participation in the Treaty. The U.S. continues to exercise its rights of inspection and encourages other countries to do likewise. The United States endeavors to develop through the Antarctic Treaty uniform rules of procedure to regulate activities in Antarctica, including the exploration, conservation, and exploitation of living and natural resources. The United States exerts efforts to ensure compliance with such measures by any country which may carry out programs in Antarctica.

A review of the implementation of the Antarctic Treaty and of scientific activities which have been carried out there clearly suggests the ubiquitous character of U.S. activities in Antarctica which has given the United States its position of leadership. This has been made possible largely by air support capability developed by the Naval Support Force. The degree to which the U.S. influences the future development of Antarctica and international cooperation depends upon the extent to which the U.S. pursues scientific, logistic, and other activities which provide flexibility of operation and access to a wide and varied area in Antarctica. The use, whenever possible, of automatic stations and satellites to obtain synoptic data required for research and for environmental monitoring will enhance this effort. Support of such activities requires staging areas in Antarctica and on continents adjacent to Antarctica.

Activities of Other Countries: An analysis of the activities of other countries in Antarctica indicates that five countries--France, Japan, Great Britain, New Zealand and the Soviet Union--have programs which show growth in geographic extent, rapid development of scientific sophistication and increase in logistic support capability. Soviet activities continue steadily to expand around the entire continent, and Soviet research vessels have been very active in the Southern Oceans.

Four countries--Argentina, Australia, Chile and South Africa--have maintained relatively constant levels of activity, but they have made capital investments in new facilities which indicate a long term intent to remain in Antarctica. Two countries--Belgium and Norway--have been unable to maintain continuous activities, but both countries have participated actively in the Treaty forum and reiterated their long range interest in Antarctica. None of the acceding parties--Czechoslovakia, Denmark, The Netherlands, and Poland--nor any other country, has carried out substantial, independent expeditionary activities in Antarctica.

Scope of Program: During the past five years, the U.S. Antarctic Program has been maintained nearly at a constant level of effort. The average annual expenditure has been $33.0 million. This includes funding for certain capital investments such as research vessels and permanent structures which include part of the replacement facility for the station at the South Pole. Of this annual average, the National Science Foundation program has been $7.5 million, the Department of Defense support effort $18.4 million, with an additional icebreaker support cost of $7.1 million which has been funded totally for the last four years by the Department of Transportation. The actual FY 1970 Department of Defense budget was $17.1 million. However, FY 1971 request to Congress was $13.2 million. This reduction of $4 million in operating funds will necessitate closing Byrd and Pole Stations as soon as operating conditions permit, placing McMurdo Station in essentially a caretake status, and curtailing intracontinental flights. This reduction will require cancellation of 80% of the previously planned and funded scientific programs on the Antarctic continent in 1970-71.

In considering alternative programs and related support activities, seven major program levels ranging in total cost from $7 million to $42 million annually have been examined in light of U.S. policy objectives in Antarctica. In examining these alternative program levels and corresponding related support activities, it may be seen that current program costs relate closely to several basic building blocks in the science programs, logistic systems and construction. (See page 6, Table - Costs of Science Programs, Logistic Systems and Antarctic Construction.)

LEVEL I — A peripheral continental program and transportation of all cargo and personnel to Antarctica by ship (1) ..... $7.0 million

LEVEL II — A peripheral continental program with limited local helicopter support, and transportation of all cargo and personnel to Antarctica by ship ..... $7.5 million

At the lowest program levels, for example, research activities which take place at the edges of the continent at McMurdo Station, Palmer Station,

(1) Underlining indicates additional activities at each level

TABLE - COSTS OF SCIENCE PROGRAMS, LOGISTIC SYSTEMS AND ANTARCTIC CONSTRUCTION

(average based on annual expenditures FY 66-70 in millions of dollars)

	NSF	USN	COGARD[1]	TOTAL
Coastal Stations Hallett, McMurdo Palmer & Hero	1.2	2.8	2.4	6.4
Construction (and Capital Investment)	.5	3.6	1.2	5.3
Other Ground Support for Air Operations	.0	8.9 (12.7)[2]	2.4	11.3 (15.1)[2]
Air Operations, Manned Inland Stations, Field Operations	3.2	3.1	1.1	7.4
Eltanin	2.6	.0	.0	2.6
	7.5	18.4	7.1	33.0

[1] The annual cost of icebreakers is pro-rated to the various activities supported--station resupply and delivery of aviation fuel, construction materiél, etc.

[2] Approximately $2.0m of Line 1 and $1.8m of Line II under USN relate directly to the capability to sustain air operations, hence should be combined with the $8.9m "Other Ground Support" to provide an indication of the expense to Navy to maintain this capability.

Hallett Station (summer only) and on board the research vessel, Hero, can be supported as a self-sustaining scientific and logistic unit at costs between $6 million and $7 million. At this level, the United States would maintain a symbolic presence with little leadership potential, a limited scientific capability with emphasis on ocean related research, slight capability to monitor environmental conditions, limited capability to support international cooperative programs, and no capability to pursue activities in the interior of Antarctica.

LEVEL III — A peripheral continental program with limited local helicopter support, a year-round oceanographic program in the Southern Oceans, and a limited program of intercontinental air support between New Zealand and Antarctica.....$15 million

LEVEL IV — A peripheral continental program with local helicopter support, a year-around oceanographic program in the Southern Oceans, air support for field activities on the continent, and a limited program of intercontinental air support between New Zealand and Antarctica.....$18 million

LEVEL V — A program with coastal and interior stations including South Pole Station, with local helicopter support, a year-around oceanographic program in the Southern Oceans, air support capability on the continent with the possibility of additional semi-permanent station locations to meet scientific requirements, regular intercontinental air support between New Zealand and Antarctica during the austral summer.....$32 million

For a safe, reliable and efficient air operation staging into Antarctica and one encompassing diversified intracontinental air operations, it has been necessary to develop an air support complex as a staging base for inter and intracontinental flights. The presently existing manned inland stations serve a dual role as ancillary staging bases as well as scientific stations. The cost to the Antarctic Program of this air support complex is about $12 million annually. With the availability of the air support complex, an additional $7.5 million provides research activities and their related support. The research vessel, Eltanin, represents an additional system which adds an oceanographic component to the program at a cost of $2.6 million a year.

The analysis indicates that the achievement of salient U.S. science program objectives and U.S. policy objectives occurs only after the commitment has been made to an air logistics system capable of supporting operations in

[redacted]

the continental interior. Maintenance of the U.S. programs at the South Pole and Byrd Stations, the conduct of field research throughout the continent, aerial mapping, remote sensing, and the placement of automatic stations to supplement the manned station network all require air support. The inspection capability of the United States is facilitated by aircraft operations because they provide the only means to carry out inspection of activities in the interior of Antarctica, and because they provide the capability to mount inspections on short notice. In conclusion, it is not until Level V that the U.S. can pursue a balanced research program (including the wide-ranging field activities which have given the U.S. scientific leadership), maintain station in the interior of Antarctica (including the South Pole Station), support non-scientific activities in the national interest, and carry out programs in cooperation with other countries.

LEVELS VI/VII — A program of coastal and interior stations similar to Level V with greatly increased air support capability, additional permanent and semi-permanent stations, and an additional air route via South America to the Antarctic.....$37-$42 million

Increase beyond the present level of science activity and its support in Antarctica would include the cost of additional manned stations around the coast or in the continental interior. The highest program level would also include the establishment of a second intercontinental air route with its attendant aviation support complex through South America to the Antarctic Peninsula. Such levels of expenditure would result in redundancy in terms of scientific return, would arouse some concern among other Treaty nations that the U.S. was seeking to dominate Antarctica, and might encourage competition rather than cooperation from the Soviet Union and other nations.

The selected program levels have encompassed planned funding for specific capital investments such as the replacement facility at the South Pole. However, in the future, specific capital investments may require additional line item appropriations. These figures do not include periodic adjustments which may be necessary because of inflation and salary increases. Also, no provision has been made for the various and considerable one-time costs which would be incurred in a major change in program level in either direction.

Administrative Arrangements: The Department of Defense has stated a desire to "begin planning for an orderly and efficient phasedown of the DOD participation in Antarctic activities and the concomitant transfer of the logistic funding and operating responsibility to a more appropriate agency." Furthermore, the Subcommittee on Defense Appropriations of the Appropriations Committee of the House of Representatives has stated with respect to the Antarctic logistic support program--that, "if additional funding was needed to support high priority research and tests, it should be sought from other governmental programs in support of scientific research." At the same

time the logistic support budget was reduced in FY 1971 by approximately $4 million.

Six alternative management Plans have been reviewed:

Plan A. Continuation of present arrangements under Bureau of the Budget Circular A-51, with Antarctic Policy Group direction.

This Plan continues the existing management arrangement for the U.S. Antarctic program as set forth in Bureau of the Budget Circular A-51 of August 3, 1960, which assigns management and budgetary responsibility for U.S. scientific activities to the National Science Foundation and assigns management and budgetary responsibility for logistic support of U.S. scientific and other activities to the Department of Defense. This arrangement has worked well and served U.S. interests and objectives for a decade. In that period U.S. Antarctic scientific programs under the direction of the National Science Foundation have advanced significantly. These scientific advances have been based in large measure on the logistic support capabilities developed by the Department of Defense.

However, the review of priorities has placed the non-defense oriented Antarctic logistic support function in competition with programs directly related to the mission of the Department of Defense. The prospects of maintaining an adequate DOD budget level for Antarctica are very dim, particularly in light of current Defense priorities and budget restrictions as well as Congressional views on DOD non-mission oriented activities.

Plan B. Continuation of present arrangements as in Plan A with exception of funding arrangements. Support funding to be budgeted by the NSF, reimbursing DOD.

This Plan continues to present arrangement except that NSF would assume the budgeting responsibility vested in the Department of Defense and maintain the present Navy logistic capability by reimbursing the Department of Defense. This arrangement has the advantage of continuing the present functioning management system. However, the National Science Foundation would find difficulty in presenting, justifying and defending what is in effect the operational budget for another agency before the Congressional committees responsible for the authorization and appropriations of the Foundation.

Plan C. NSF to budget and fund for both science and support programs with policy direction by the Antarctic Policy Group; to continue to support university and Federal agency research programs; to draw upon other government agencies for logistic support on a mutually acceptable reimbursable or non-reimbursable basis; to use commercial support when cost effective.

This Plan provides an alternative arrangement designed to overcome the budgeting problems for DOD and NSF which Plans A and B present. It has an added advantage of facilitating the development of selected commercial support

of scientific activities. Analysis has shown that a selected mixture of commercial support and government agency support may be cost effective. However, it represents a major departure from the present system and will require phaseover of budgeting responsibility and management functions. To prevent disruption of the on-going science program or an unplanned discontinuation of U.S. presence in Antarctica, a transition phase beginning with a continuation of the present management arrangements and moving in an orderly sequence to implementation of Plan C should be adopted. The transition phase will provide NSF the opportunity to plan for the assumption of the additional budgetary and management responsibility and at the same time provide continuity of present authority during the transition phase.

Plan D. Transfer budgeting and funding responsibility for logistic support to an agency other than NSF; NSF to budget and fund science program with policy direction by the Antarctic Policy Group.

This Plan offers a further alternative solution to budgeting for the U.S. Antarctic Program. However, the transition problems are increased. Designating total logistic support responsibility to an agency other than DOD or NSF will require development of a new management capability. While other departments have participated in Antarctic programs by carrying out scientific programs coordinated and funded by NSF, as well as specific logistic support functions under the overall direction of the DOD, no other Department has an overall operational familiarity with the Antarctic program.

Plan E. NSF funds for both science and support programs, utilizing commercial support and management facilities for logistic support with policy direction by the Antarctic Policy Group.

In this Plan consideration is given to an entirely commercially supported program in Antarctica. Analysis showed that the estimated costs of such a system, sufficient to support a significant presence in Antarctica, are high. Furthermore, two vital elements of the support system cannot be provided by this arrangement in the foreseeable future or without very large capital investments--large ski-equipped aircraft, and ice-strengthened ships and icebreakers.

Plan F. Establishment of an Antarctic commission to administer support for science programs and development of other potential Antarctic programs.

This Plan offers a further alternative budgeting arrangement. It requires new legislation and thus an indefinite transition period during which a program would have to be maintained in accordance with another arrangement. It does not, therefore, offer an immediate budgetary alternative. Subject to the provisions of the legislation, a commission might offer a more efficient and responsive arrangement. Commission legislation proposed in the past, however, has been considered to duplicate existing agency authorities, to isolate Antarctic programs from related program activities in other areas

of the world, and to complicate interagency coordination. In terms of routine policy formulation the Antarctic Policy Group is considered to be a simple, immediately available, and responsive arrangement.

In evaluating these alternative management and funding arrangements, one fundamental assumption has been made: This is, any transfer of budgeting and funding responsibility from another agency to the National Science Foundation will be accompanied by a corresponding increase in the NSF budget estimates to accommodate the additional Antarctic logistic support costs. It is further assumed that Congress will appropriate the necessary funds over and above and in addition to the annual appropriation requested by NSF for its annual authorized programs and appropriated by the Congress for those purposes. The success of this arrangement hinges upon the concurrence and support of Congress. It is apparent that the Appropriations Committee holds the view that an agency which is responsible for Antarctic scientific programs ought to budget the Antarctic logistic support costs. It is less clear that the Congressional Committees would view with corresponding approbation the assumption by the National Science Foundation of this responsibility. However, there is no reason to suppose that it would not be favorably received, particularly when it is pointed out that the change does not involve a net change in the Federal budget.

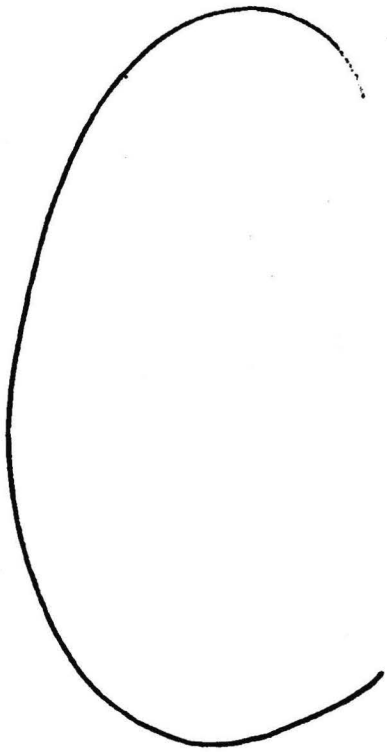
Recommendations

In light of the foregoing discussion, the following recommendations concerning program level and management are made:

Recommendation No. 1: In order to achieve U.S. objectives in Antarctica, it is recommended that the U.S. Antarctic Program be maintained at a level which continues U.S. leadership and supports scientific programs and other activities in Antarctica. Maintenance of a program at approximately the present average annual level would accomplish these objectives.

Recommendation No. 2: It is recommended that the National Science Foundation budget for the United States science and support programs in Antarctica; that the Foundation continue to fund university research and Federal agency programs; that the Foundation draw upon the logistic support capability of government agencies on a mutually acceptable reimbursable or non-reimbursable basis; and that the Foundation use commercial support and management facilities where these are determined to be cost effective (Plan C).

Recommendation No. 3: It is recommended that responsibility for program and operational management and for safety of operations in Antarctica should initially remain as they are set forth in Bureau of the Budget Circular A-51 of August 3, 1960. However, with the transfer of various operational responsibilities to other agencies or commercial organizations, it may be desirable to make corresponding transfers of the responsibility for operational management and safety. To ensure that the transfer of these responsibilities is done in an orderly manner, the Department of Defense, the National Science Foundation, and other interested agencies would recommend such changes to the Antarctic Policy Group for consideration.



DEF

DEPARTMENT OF STATE

Washington, D.C. 20520

NSC UNDER SECRETARIES COMMITTEE

[redacted]

NSC-U/SM-55H

October 1, 1975

TO: The Deputy Secretary of Defense
The Assistant to the President for National Security Affairs
The Director of Central Intelligence
The Chairman of the Joint Chiefs of Staff
The Deputy Secretary of the Treasury
The Under Secretary of the Interior
The Under Secretary of Commerce
The Under Secretary of Transportation
The Chairman, Council on Environmental Quality
The Director, National Science Foundation
The Director, Arms Control and Disarmament Agency
The Administrator, Environmental Protection Agency
The Administrator, Federal Energy Administration

SUBJECT: United States Antarctic Policy and Program

The Under Secretaries Committee has been requested to undertake a review of our political, economic (including resources), national security and scientific objectives in the Antarctic and to consider appropriate program levels and management arrangements for their attainment. This study should take into account past reviews and policy decisions, and, particularly, any changes in our interests, programs, and agency responsibilities relative to the Antarctic. The terms of reference for this review are contained in the attached memorandum.

Addressees are requested to advise Mr. Theodore Sellin, Department of State, 632-8997, of the name of their representative on the working group.

[redacted]

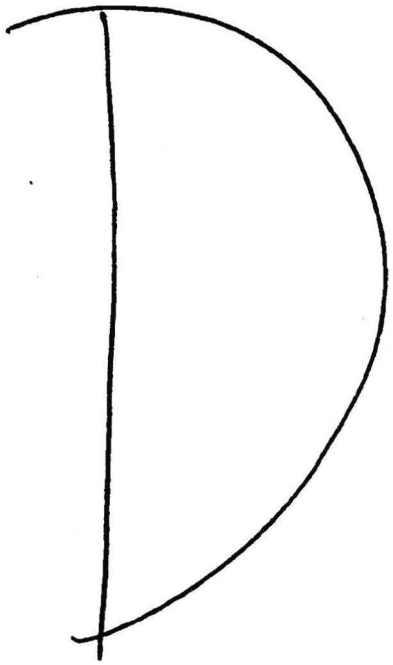
SEC DEF CONTR No. X-2944

The review, together with a draft Memorandum for the President, should be available for circulation to the Membership no later than Friday, October 24.

Wreatham E. Gathright
Staff Director

Attachment:

As stated



NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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COPIES TO:
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September 30, 1975

MEMORANDUM FOR

CHAIRMAN, NSC UNDER SECRETARIES COMMITTEE

SUBJECT: United States Antarctic Policy and Program

Guidance for the US policy and programs in the Antarctic was stated in NSDM 71 and NSDM 263. Since this guidance was issued, there has been a growing international interest in the living and non-living resources of the Antarctic, an increase in the level of Antarctic activity on the part of several Antarctic Treaty nations, and a steady increase in US Antarctic Program support costs.

In view of these developments, the Under Secretaries Committee, with the assistance of the Antarctic Policy Group, is requested to undertake a review of our political, economic (including resources), national security and scientific objectives in the Antarctic and to consider appropriate program levels and management arrangements for their attainment. This study should take into account past reviews and policy decisions and, particularly, any changes in our interests, programs, and agency responsibilities relative to the Antarctic. The study should, inter alia, address the following:

1. The nature and extent of present and foreseeable future US political, economic, security and scientific interests in the Antarctic Treaty area;

2. US objectives in the Antarctic and under the Antarctic Treaty;

3. The nature of the US presence and an assessment of the activities connected with that presence required to protect and further national interests and rights and achieve national objectives in the Antarctic, together with an estimation of any international and domestic consequences of terminating US activities in the Antarctic;

4. The political utility and national security purpose of a military presence in the Antarctic under the terms of Article 1 of the Antarctic Treaty;

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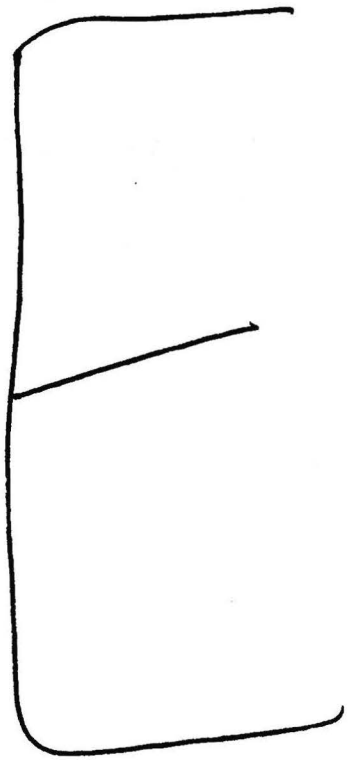
5. The makeup and level of the planned and proposed US Antarctic program, its funding and management arrangements.

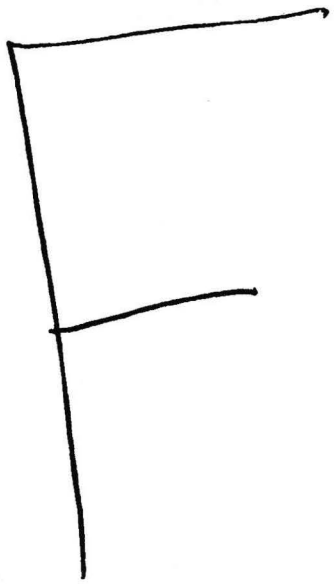
The review should set forth options with respect to US presence, level of activity and funding and management arrangements, together with their advantages and disadvantages, and agency views and recommendations.

For the purposes of this review, the NSC Under Secretaries Committee should also include representatives of the Departments of Treasury, Interior, Commerce and Transportation, the National Science Foundation, the Federal Energy Administration, the Arms Control and Disarmament Agency, the Office of Management and Budget, and the Council on Environmental Quality.

The report of the Under Secretaries Committee should be forwarded not later than November 10, 1975, for the President's consideration.

Henry A. Kissinger





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Strategic [illegible] the Antarctic

DECLASSIFIED IN FULL
Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: SEP 0 1 2017

1. Military Implications.

Summary

The history of the Antarctic has been unique in an almost total lack of military operations there other than those associated with logistic functions in support of national scientific programs. The only instance, on record, involving the deployment of a combatant military force to the Antarctic area south of 60°S, occurred in 1943 when the British sent a naval force there to respond to the activities of German raiders who were using sub-Antarctic islands as refuge while preying on Norwegian whaling ships. Increasing budgetary constraints and a narrowing of defense interests to significant commitments makes it unlikely that the Antarctic continent will develop as a locus for military activity, either of a research and development nature or of an operational nature. In the foreseeable future its inhospitable climate for both man and equipment and the provisions of the Antarctic Treaty are formidable constraints to development of a military use of the continent.

Arguments have been advanced that the Drake Passage between the southern tip of South America and the Antarctic peninsula represents a strategic passage should the use of the Panama Canal be denied to us and that the passage can be protected from bases on the Antarctic peninsula. Although the Drake Passage is of strategic significance, it seems unlikely that any U.S. Antarctic base in the peninsula area could materially contribute to modern air or submarine operations. It is more likely that adequate wartime control over the Drake Passage could better be realized through continued cooperation efforts with Chile and Argentina. U.S. attempts at force basing in the peninsula area would undoubtedly create strains in our relations not only with these states, but with the UK which also claims sovereign rights in the peninsula area, and of course would be a violation of the Antarctic Treaty.

Basing of fleet ballistic submarines in the Antarctic or FBM submarine patrols south of 60°S would be affected by environmental stresses and severe logistic strains. While Trident range capability would increase the effective operating radius of SLBM platforms, the advantage of SLBM operations in other ocean areas closer to the logistic train with far less costly basing under more advantageous environmental conditions outweigh most reasons for Antarctic submarine operations.

Although operationally unrealistic, shore based missile complexes in the Antarctic would be strategically more suitable to Soviet purposes than to U.S. strategy. Soviet pressure could be brought to bear on S. America Australia, New Zealand, and South Africa but at relatively high cost. ICBM installations in the Antarctic could allow the Soviets to operate outside

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Dec 81.

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One possible role that Antarctica could have in the strategic posture of the U.S.S.R. might involve the use of "scientific" stations in Antarctica to direct the re-entry of warheads from an orbital bombardment platform inserted in a southern polar orbit. Such orbital systems are legally forbidden by the UN Outer Space Treaty, but if the Soviets were to risk international repercussions in this example, by deploying such a system (which is verifiable within current state of the art), de-orbital command and control needs could be satisfied from Soviet scientific stations in Antarctica. It would be difficult for an inspection team to determine if ground equipment is used for anything other than satellite tracking which is allowed by the Antarctic Treaty. However, the problem of de-orbital command and control links to an orbital bombardment system or even a fractional orbital bombardment system, unconstrained by treaty limitations, can be solved either with land or sea based units in a wide variety of locations other than the Antarctic area with far greater security and at far less cost. The same consideration which would cause the Soviets to turn down this option would be applicable to any similar U.S. system.

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II. Politico-Economic Implications.

Summary

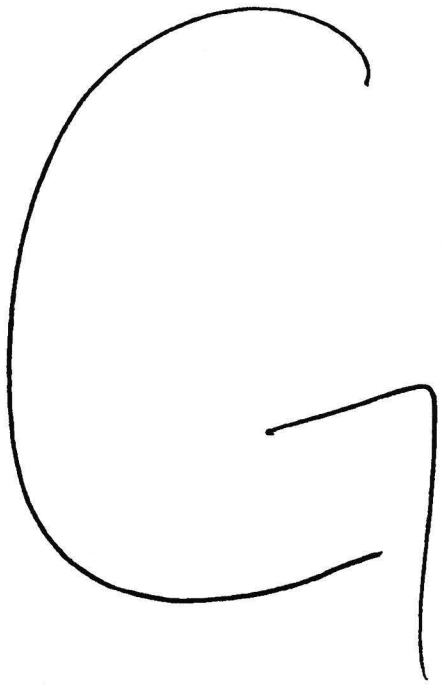
The accelerating pace in the search for the world's eroding supply of natural resources, especially hydrocarbons, has sharply focused attention on the Antarctic, particularly among the 12 parties to the Antarctic Treaty. So far, there is little positive evidence to indicate that petroleum, for example, exists in commercially attractive quantities. However, there is deduced evidence, based on explorative and paleogeological precedents in

other sections of the world, that petroleum does exist in the area in amounts sufficient to make a case for exploration and eventual exploitation. The recent Oslo meeting of the Antarctic Treaty parties preliminarily examined the issue in terms of an international resource regime and will address the entire subject in greater detail next June. This issue is charged with a plethora of conflicting views, diverse national interests, competing claims of sovereignty, and international environmental constraints as well as the spectre of a developing interest of the United Nations where the additionally conflicting views of 126 more nations would become involved. Discord over any one of these factors could destroy the delicate framework of the Antarctic Treaty which has served U.S. interests well, has kept the Antarctic militarily benign and which could serve as the overall framework containing a regime for the exploration and exploitation of petroleum resources. U.S. national interests in guaranteed access to mineral resources under that framework could be threatened by a breakdown of the treaty.

Should it develop that the frail structure of the Antarctic Treaty is not strong enough to support an amalgam of diverse forces and ultimately collapses, U.S. military efforts could well be directed toward protecting any future U.S. claims to sovereignty or the activities of U.S. privately financed explorative or exploitative operations in the Antarctic area. Aside from that postulation, the over-all USARP (U.S. Antarctic Research Program), directed and funded by the National Science Foundation (NSF), remains the major U.S. effort in the Antarctic and represents the U.S. "influential presence" in the Antarctic directed by the President in NSDM 71. DOD's participation in the USARP, preserved through the facilities of the Naval Support Force, Antarctica and the supporting aircraft logistic squadron contributes significantly to maintaining the U.S. presence as would any U.S. activity relative to its size. The association of DOD, especially the Navy, with Antarctic programs has been an historical one of long duration and has maintained a military presence in the area given the prohibition of military activities in the Antarctic unassociated with logistics and support.

It should be noted that recognition of a reduced or negative DOD interest in Antarctica is likely to result in a decrease or possible elimination of a military presence as NSF seeks to reduce logistic support costs in every way possible. Depending on the extent of NSF actions, this result could signal a reduced U.S. interest in Antarctica at a time when the growing significance of the Antarctic resource issue and U.S. leadership in developing an Antarctic resources regime makes such a signal undesirable. If an active and influential presence in Antarctica per NSDM-71 is still desired however, present budgetary arrangements are equally capable of providing the proper level of funding directly to NSF if the President, OMB, and the Congress desire to do so.

With the somewhat precarious status of the Antarctic Treaty, and the evidence of increased Soviet station building activity, it is recommended that (1) we continue to support the USARP directed by NSF, (2) that we not preemptorily increase military activity in Antarctica, but that the present extent and funding arrangements of DOD participation be maintained, (3) that we continue to support and participate in on-site inspections of U.S.S.R. facilities in the area as an indication of a workable mutual inspection precedent, (4) that we continue to support the Antarctic Treaty as the best means of preserving U.S. national interests in developing mineral and natural resources of the treaty area, and (5) that we resist attempts to assign DOD an Antarctic mission other than logistic support for USARP.



WASHINGTON, D. C. 20301

[redacted]

9 Oct 1974

Honorable H. Guyford Stever
Director, National Science Foundation

Dear Dr. Stever:

(U) Thank you for the letter of August 16, 1974 outlining your differences in interpretation concerning the Department of Defense's responsibilities for funding the costs of the U.S. Antarctic Research Program (USARP). I too regret that we are unable to agree.

(U) Essentially we are asking the National Science Foundation (NSF) to reimburse us for the costs the Department of Defense (DoD) would not incur if it was not for support of the NSF Antarctic Program. It has been determined that the squadron devoted to this requirement is not needed to meet current DoD programs and would be eliminated from the force if it was not required to support NSF. We think this satisfies the criteria indicated by the Office of Management and Budget (OMB) on January 16, 1974, that ". . . NSF reimbursement should cover the full cost of USARP support provided by DoD, but only to the extent that such support would not be required in the absence of the NSF program."

(U) The NSF position is that full reimbursement is not required because DoD has a responsibility to share the financial burden of the U.S. Antarctic Program.

(U) I believe these two positions represent an impasse which cannot be resolved by meetings between our respective staffs, since both OMB and the House Appropriations Committee clearly have indicated that the program should be supported by funds appropriated for scientific research in Antarctica.

(U) Therefore, DoD will request OMB to make the necessary budgetary realignment. A copy of this request is enclosed for your information and to afford you an opportunity to comment directly to OMB.

Sincerely,

/s/

Mr. Clements

Enclosure

[redacted]

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OSD/RC

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

INTERNATIONAL SECURITY AFFAIRS

In reply refer to:
I-11829/75

MEMORANDUM FOR DEPUTY SECRETARY OF DEFENSE

SUBJECT: United States Policy and Program for Antarctica U/SM-551 -- ACTION MEMORANDUM

ISSUE: Are the memorandum for the President and report (Tab B) responsive to USC memorandum U/SM 55H of 1 October 1975 (Tab C) which forwarded an NSC request (Tab D) for a broad review of U.S. objectives in the Antarctic and recommendations for appropriate program levels and management arrangements to satisfy those objectives?

BACKGROUND: Since NSDM 71 of 10 July 1970 (Tab E), which assigned over-all management and budgetary responsibility for the U.S. Antarctic program to the National Science Foundation (NSF), not only has the Antarctic emerged as an area of natural resource interest but the logistic costs associated with the ongoing U.S. Antarctic program have risen to a point where the NSF believes it can no longer support the program without adverse impact on its other scientific endeavors. In an effort to force DOD to fund all or part of Antarctic logistic support, NSF has energetically sought to have a formal Antarctic military mission responsibility as well as a funding requirement assigned to DOD. After extensive review within the Joint Staff, which resulted in the ISA study at Tab F, OSD representatives in the Antarctic Policy Group firmly maintained the position taken by you at Tab G and rejected the suggestion that DOD assume budgetary responsibility for logistic operations in the Antarctic. The National Science Foundation at that point placed the issue before the National Security Council.

DISCUSSION: While the Department of Defense is generally sympathetic to the impact of rising logistic costs, the NSF finds itself in the same financial predicament faced by every federal agency -- continued inflation and OMB constraints against budgeting for future cost escalation. The major Department of Defense interest in this issue is to insure that the DOD is not assigned financial responsibility for a program that has been found by earlier NSC decision, Congressional opinion and internal DOD study, to lie outside the requirements for the national defense and which, on a five-year basis, will have a cost of approximately one quarter billion dollars.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

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S11/92

(U) To the extent that it identifies current management anomalies (based solely on financial problems within the NSF), the report is generally responsive to the NSC request. Had time permitted the opportunity to focus on other considerations in greater depth, some attention might have been given to the management problems an international resource regime will create. It would appear that these problems will eventually have to be faced and some consideration given to the development of a federal agency to manage increasingly disparate interests in the Antarctic.

RECOMMENDATION: (U) That you sign the attached memorandum to the Chairman, NSC Under Secretaries Committee (Tab A), which approves the memorandum to the President, states the DOD management option preference, and provides the DOD reasons for favoring that option.

(Signed)
Robert Ellsworth
Assistant Secretary of Defense
Assistant Secretary of Defense, ISA

Director, Joint Staff

COORDINATION:
Assistant Secretary of Defense (Comptroller)

Chairman, Joint Chiefs of Staff: Approved

Disapproved

Attachments 7
a/s

Dist.: Orig w/atts to addee Prepared by CDREJMelansonJrUSN/OASD/ISA/PD/NAC
Xerox cy: Signer, PD, PD/NAC COMEBACK, 48748/X-77840/14Nov75/mnb
RF, RC, OSR/RC, Subject, Chron, Stayback, COORDINATION REQUIRED: See memo to DepSecDef
ASD(C), JCS, SecDef, DepSecDef

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Assistant Secretary of Defense, ISA

Director, Joint Staff

COORDINATION: Jeremiah E McVarn 13 NOV 1975
Assistant Secretary of Defense (Comptroller)

Chairman, Joint Chiefs of Staff: Approved _____

Disapproved _____

Attachments

CONFIDENTIAL

THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

20 NOV 1975

MEMORANDUM FOR CHAIRMAN, NSC UNDER SECRETARIES COMMITTEE

Subject: United States Antarctic Policy and Program (U)

(C) Reference is made to the report NSC-U/SM 55I, dated 5 November 1975, subject as above, prepared by the USC working group in response to an NSC memorandum which requested a broad review of U. S. objectives in the Antarctic and a recommendation on the over-all dimensions and management options to satisfy those objectives.

(C) With respect to the management options presented, the Department of Defense supports the following:

> "Management Option 1 which reaffirms the current one agency management structure. Over-all management and budgeting responsibility for the entire U. S. Antarctic program would be assigned to the National Science Foundation with DOD and DOT assuring the continued availability of logistic support on a cost reimbursable basis."

(C) The Department of Defense also believes that Option 1 should be amended to permit the National Science Foundation (NSF) to call upon either government or commercial sources for its logistic support on the basis of cost effectiveness. Additionally, the NSF should be assured that its annual budget will be adequate to fund the increasing cost of logistic support operations in the Antarctic. Further, the DOD Fiscal Year 1977 budget, at OMB direction, is structured to support Option 1 and is consistent with the guidance provided by the House Appropriations Committee. The selection of any other option could not be effectively implemented until Fiscal Year 1978 and would require prior clearance with the aforementioned committee.

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CONFIDENTIAL

SEC DEF CONTR No. X-3392

The Department of Defense believes that the draft memorandum for the President should be supplemented by adding comments on the over-all management considerations perceived by the DOD and the long-range implications of Antarctic funding support to the Defense budget.

In regard to management of the program, the Department of Defense believes that NSDM 71 correctly established the principle that one federal agency should oversee U. S. interests in the Antarctic, and that since, as the White House announced on 13 October 1970, "the Antarctic is the only continent where science serves as the principal expression of national policy and interest," it was most appropriate that the NSF be assigned management and budgetary responsibility. Given the recent developing international interest in Antarctic resources, the Department of Defense believes that these NSDM 71 decisions are even more valid today.

In the spectrum of management options presented in the report of the working group, only Option 1 places over-all management and budgeting responsibility in one federal agency, the National Science Foundation. At a time when the possibility of exploitable Antarctic resources has focused new interest in the area, there is a need to be able to acquaint interested Congressional observers, OMB, and other federal regulatory agencies with such aspects as the entire level of federal support, the dimensions of the scientific program, the determination of its effectiveness, cost comparisons, and management procedures and arrangements. Additionally, it permits the Chief Executive to look to one agency for over-all Antarctic responsibility. An additional factor favoring the selection of Option 1 is the impact of any sudden management or budgetary change on the perceptions of our Antarctic Treaty partners and other nations. The Antarctic Treaty preserves the area from any military activity other than that associated with logistic support. A sudden shift of funding responsibility to the Department of Defense could well provoke concern among other nations that the U. S. is looking at the Antarctic from other than scientific considerations, particularly since the resource question is currently placing strain on the treaty itself. Any budgeting within DOD clearly places a military implication on the subject.

(C) Further, the current arrangement is compatible with the intent and desire of the Congress that DOD funding be restricted to supporting those requirements which clearly relate to the national defense. The Antarctic program has been specifically excluded as outside national defense requirements. Recently, largely at the urging of the NSF, the Department of Defense has completed three internal reviews and has informed the Antarctic Policy Group that the Antarctic has no place in any current or foreseeable plans for military operations even if such were permitted by the treaty. The materiel and equipment assigned to the Navy's Antarctic Task Force are currently provided only to support the NSF in response to direction in NSDM 71. If it were not for the assigned responsibility, these assets would be removed from the Defense inventory as being excess to our needs. All cold weather training and research necessary to the Department of Defense is accomplished in the Arctic.

(C) With respect to Defense budget implications, while the realities of fiscal constraint were among the factors which resulted initially in the transfer of all responsibility for the Antarctic to NSF by NSDM-71, those fiscal restrictions are even more sharply felt today. With a Defense budget compressed by Congressional constraints as well as by inflationary forces, DOD funding limitations now impact adversely on every aspect of operations from weapons procurement to maintenance and training. Funding for the Antarctic program, which now approximates $40 million per year can be expected to increase. Future costs can be conservatively predicted to reach almost a quarter billion dollars on a five-year basis. With Congressional support uncertain at best, the Department of Defense clearly cannot agree to support a program of this dimension which is totally outside the national defense requirements of the United States. Within DOD, the Antarctic program would find itself in competition for defense dollars critically and occasionally urgently needed for valid national defense requirements. In that financially competitive environment, funding for the Antarctic program would always be secondary.

(C) Concern has been expressed over the size of the Antarctic program costs in relation to the basic science mission and total budget of the NSF. While the Antarctic program does constitute a large part of the NSF budget, the costs to the U. S. would remain the same regardless of where budgetary

responsibility were assigned. It has been claimed that the requirement for a small civilian agency to justify the budget for operational Navy units is a problem. However, the requirement to justify funding for Navy units employed solely to support the Antarctic program will exist under any management concept. It has been implied that the separation of responsibility to provide funding from the authority to exercise operational control is another management anomaly. Unless total Antarctic management responsibility were vested in a non-DOD agency equipped to operate and manage military assets such as the Coast Guard or NOAA, that anomaly would exist and does not appear to be an insurmountable obstacle to effective and efficient operations. In fact, were aviation and other logistic services commercially contracted, those firms would insist on control over operations, training, and safety of their committed assets. Finally, it is not at all clear that the selection of Option 1 would require a separate Congressional appropriation. Once the financial dilemma is resolved, the Department of Defense believes that any management anomalies can be easily worked out among those concerned by the usual process of memorandum of agreement.

~~(C)~~ Accordingly, the Department of Defense supports Option 1 on the basis that it is (a) most compatible with sound management procedures and consistent with other management arrangements within the government, (b) capable of insuring, through the provisions of the Antarctic Treaty, that U. S. national interests in resource exploration and exploitation are protected in a time of emerging interest in the Antarctic, (c) in keeping with military constraints of the treaty which require that the area remain militarily benign, (d) one that will allow DOD to carry out its commitment for the national defense without competition from a program unrelated to those defense requirements and (e) conversely, will allow the Antarctic program to be identified as a separate claimant for funds within the scientific community, (f) would avoid the presentation of undesirable signals to our Antarctic, Treaty partners were funding suddenly shifted to the DOD and (g) would, consistent with normal military practices, permit the usual military management and inspection procedures of military assets. Finally, the Fiscal Year 1977 Defense Budget is structured to support Option 1 and is consistent with both Congressional guidance and OMB direction.

(U) Subject to the above recommended modifications to the memorandum for the President to provide the DOD position, the Chairman of the Joint Chiefs of Staff and I concur in the draft memorandum to the President.

Signed
W. P. CLEMENTS JR.

Dist.: Orig + cc to addee, xerox cy DepSecDef, SecDef, Asst to SecDef & DepSecDef, OSD/RC, ISA/RF, ISA/RC, Subject, Chron, Stayback, ASD(C), JCS

Prepared by CDREJMelansonJrUSN/OASD/ISA/PD/NAC 4B748/X-77840/14Nov75/mnb
COORDINATION REQUIRED: See memo to DepSecDef

DEF

DEPARTMENT OF STATE

Washington, D.C. 20520

NSC UNDER SECRETARIES COMMITTEE

~~CONFIDENTIAL~~
NSC-U/SM-55H

October 1, 1975

TO: The Deputy Secretary of Defense
The Assistant to the President for National Security Affairs
The Director of Central Intelligence
The Chairman of the Joint Chiefs of Staff
The Deputy Secretary of the Treasury
The Under Secretary of the Interior
The Under Secretary of Commerce
The Under Secretary of Transportation
The Chairman, Council on Environmental Quality
The Director, National Science Foundation
The Director, Arms Control and Disarmament Agency
The Administrator, Environmental Protection Agency
The Administrator, Federal Energy Administration

SUBJECT: United States Antarctic Policy and Program

The Under Secretaries Committee has been requested to undertake a review of our political, economic (including resources), national security and scientific objectives in the Antarctic and to consider appropriate program levels and management arrangements for their attainment. This study should take into account past reviews and policy decisions, and, particularly, any changes in our interests, programs, and agency responsibilities relative to the Antarctic. The terms of reference for this review are contained in the attached memorandum.

Addressees are requested to advise Mr. Theodore Sellin, Department of State, 632-8997, of the name of their representative on the working group.

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SEC DEF CONTR No. X-2944

The review, together with a draft Memorandum for the President, should be available for circulation to the Membership no later than Friday, October 24.

Wreatham E. Gathright
Staff Director

Attachment:

As stated

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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IES TO:
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-DESK
NS

September 30, 1975

MEMORANDUM FOR

CHAIRMAN, NSC UNDER SECRETARIES COMMITTEE

SUBJECT: United States Antarctic Policy and Program

Guidance for the US policy and programs in the Antarctic was stated in NSDM 71 and NSDM 263. Since this guidance was issued, there has been a growing international interest in the living and non-living resources of the Antarctic, an increase in the level of Antarctic activity on the part of several Antarctic Treaty nations, and a steady increase in US Antarctic Program support costs.

In view of these developments, the Under Secretaries Committee, with the assistance of the Antarctic Policy Group, is requested to undertake a review of our political, economic (including resources), national security and scientific objectives in the Antarctic and to consider appropriate program levels and management arrangements for their attainment. This study should take into account past reviews and policy decisions and, particularly, any changes in our interests, programs, and agency responsibilities relative to the Antarctic. The study should, inter alia, address the following:

1. The nature and extent of present and foreseeable future US political, economic, security and scientific interests in the Antarctic Treaty area;

2. US objectives in the Antarctic and under the Antarctic Treaty;

3. The nature of the US presence and an assessment of the activities connected with that presence required to protect and further national interests and rights and achieve national objectives in the Antarctic, together with an estimation of any international and domestic consequences of terminating US activities in the Antarctic;

4. The political utility and national security purpose of a military presence in the Antarctic under the terms of Article 1 of the Antarctic Treaty;

5. The makeup and level of the planned and proposed US Antarctic program, its funding and management arrangements.

The review should set forth options with respect to US presence, level of activity and funding and management arrangements, together with their advantages and disadvantages, and agency views and recommendations.

For the purposes of this review, the NSC Under Secretaries Committee should also include representatives of the Departments of Treasury, Interior, Commerce and Transportation, the National Science Foundation, the Federal Energy Administration, the Arms Control and Disarmament Agency, the Office of Management and Budget, and the Council on Environmental Quality.

The report of the Under Secretaries Committee should be forwarded not later than November 10, 1975, for the President's consideration.

Henry A. Kissinger

Strategic Appraisal of the Antarctic

1. Military Implications.

Summary

The history of the Antarctic has been unique in an almost total lack of military operations there other than those associated with logistic functions in support of national scientific programs. The only instance, on record, involving the deployment of a combatant military force to the Antarctic area south of 60°S, occurred in 1943 when the British sent a naval force there to respond to the activities of German raiders who were using sub-Antarctic islands as refuge while preying on Norwegian whaling ships. Increasing budgetary constraints and a narrowing of defense interests to significant commitments makes it unlikely that the Antarctic continent will develop as a locus for military activity, either of a research and development nature or of an operational nature. In the foreseeable future its inhospitable climate for both man and equipment and the provisions of the Antarctic Treaty are formidable constraints to development of a military use of the continent.

Arguments have been advanced that the Drake Passage between the southern tip of South America and the Antarctic peninsula represents a strategic passage should the use of the Panama Canal be denied to us and that the passage can be protected from bases on the Antarctic peninsula. Although the Drake Passage is of strategic significance, it seems unlikely that any U.S. Antarctic base in the peninsula area could materially contribute to modern air or submarine operations. It is more likely that adequate wartime control over the Drake Passage could better be realized through continued cooperation efforts with Chile and Argentina. U.S. attempts at force basing in the peninsula area would undoubtedly create strains in our relations not only with these states, but with the UK which also claims sovereign rights in the peninsula area, and of course would be a violation of the Antarctic Treaty.

Basing of fleet ballistic submarines in the Antarctic or FBM submarine patrols south of 60°S would be affected by environmental stresses and severe logistic strains. While Trident range capability would increase the effective operating radius of SLBM platforms, the advantage of SLBM operations in other ocean areas closer to the logistic train with far less costly basing under more advantageous environmental conditions outweigh most reasons for Antarctic submarine operations.

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the BMEW's coverage; however, their SLBM capability already provides them with this option without the disadvantages of high costs of Antarctic shore basing and the great loss in political capital world-wide. Additionally, it would be difficult for the Soviets to introduce a long range missile capability covertly in the Antarctic given the sophistication of U.S. intelligence programs coupled with the on-site inspections permitted under the Antarctic Treaty. It is unlikely that any perceived strategic advantage of missile basing in the Antarctic would be enough to make it worthwhile for the U.S.S.R. to sustain the international antagonisms that action would probably generate.

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Should it develop that the frail structure of the Antarctic Treaty is not strong enough to support an amalgam of diverse forces and ultimately collapses, U.S. military efforts could well be directed toward protecting any future U.S. claims to sovereignty or the activities of U.S. privately financed explorative or exploitative operations in the Antarctic area. Aside from that postulation, the over-all USARP (U.S. Antarctic Research Program), directed and funded by the National Science Foundation (NSF), remains the major U.S. effort in the Antarctic and represents the U.S. "influential presence" in the Antarctic directed by the President in NSDM 71. DOD's participation in the USARP, preserved through the facilities of the Naval Support Force, Antarctica and the supporting aircraft logistic squadron contributes significantly to maintaining the U.S. presence as would any U.S. activity relative to its size. The association of DOD, especially the Navy, with Antarctic programs has been an historical one of long duration and has maintained a military presence in the area given the prohibition of military activities in the Antarctic unassociated with logistics and support.

It should be noted that recognition of a reduced or negative DOD interest in Antarctica is likely to result in a decrease or possible elimination of a military presence as NSF seeks to reduce logistic support costs in every way possible. Depending on the extent of NSF actions, this result could signal a reduced U.S. interest in Antarctica at a time when the growing significance of the Antarctic resource issue and U.S. leadership in developing an Antarctic resources regime makes such a signal undesirable. If an active and influential presence in Antarctica per NSDM-71 is still desired however, present budgetary arrangements are equally capable of providing the proper level of funding directly to NSF if the President, OMB, and the Congress desire to do so.

With the somewhat precarious status of the Antarctic Treaty, and the evidence of increased Soviet station building activity, it is recommended that (1) we continue to support the USARP directed by NSF, (2) that we not preemptorily increase military activity in Antarctica, but that the present extent and funding arrangements of DOD participation be maintained, (3) that we continue to support and participate in on-site inspections of U.S.S.R. facilities in the area as an indication of a workable mutual inspection precedent, (4) that we continue to support the Antarctic Treaty as the best means of preserving U.S. national interests in developing mineral and natural resources of the treaty area, and (5) that we resist attempts to assign DOD an Antarctic mission other than logistic support for USARP.

9 Oct 1974

Honorable H. Guyford Stever
Director, National Science Foundation

Dear Dr. Stever:

(U) Thank you for the letter of August 16, 1974 outlining your differences in interpretation concerning the Department of Defense's responsibilities for funding the costs of the U.S. Antarctic Research Program (USARP). I too regret that we are unable to agree.

(U) Essentially we are asking the National Science Foundation (NSF) to reimburse us for the costs the Department of Defense (DoD) would not incur if it was not for support of the NSF Antarctic Program. It has been determined that the squadron devoted to this requirement is not needed to meet current DoD programs and would be eliminated from the force if it was not required to support NSF. We think this satisfies the criteria indicated by the Office of Management and Budget (OMB) on January 16, 1974, that ". . . NSF reimbursement should cover the full cost of USARP support provided by DoD, but only to the extent that such support would not be required in the absence of the NSF program."

(U) The NSF position is that full reimbursement is not required because DoD has a responsibility to share the financial burden of the U.S. Antarctic Program.

(U) I believe these two positions represent an impasse which cannot be resolved by meetings between our respective staffs, since both OMB and the House Appropriations Committee clearly have indicated that the program should be supported by funds appropriated for scientific research in Antarctica.

(U) Therefore, DoD will request OMB to make the necessary budgetary realignment. A copy of this request is enclosed for your information and to afford you an opportunity to comment directly to OMB.

Sincerely,

/s/

Wm. Clements

[redacted]